

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

January 13, 2020

MEMORANDUM TO: Clark Morrison PhD, P.E.

State Pavement Design Engineer

Teresa Bruton, PE Design Build Manager

FROM: J. L. Pilipchuk, PE, LG

State Geotechnical Engineer

—DocuSigned by:

John Pilipchuk

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STATE PROJECT: 44648.1.4 (R-5777C) Design-Build

COUNTY: Craven

DESCRIPTION: US 70 Improvements from Thurman Road (SR 1116) to the

Havelock Bypass

SUBJECT: Pavement and Subgrade Inventory

The NCDOT Geotechnical Engineering Unit has completed the evaluation of the pavement and subgrade investigation and presents the following information.

The NCDOT Geotechnical Engineering Unit contracted Terracon to perform the pavement and subgrade investigation for R-5777C. The fieldwork was performed in July 2019. Terracon utilized a CME-45B drill rig to cut 4-inch pavement cores and auger approximately 6 feet below subgrade. Dynamic Cone Penetrometer Tests were conducted on subbase materials below the pavement and into the underlying soils to evaluate in-situ strengths. Representative soil and moisture samples were collected for visual field classification and laboratory analysis. Bulk samples were taken at select locations to be tested for CBR. Laboratory testing was performed by Terracon.

JLP/JBB

ATTACHMENT 1: Pavement and Subgrade Inventory 79

SEE SHEET 3 FOR PLAN SHEET LAYOUT AT TIME OF INVESTIGATION

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS** GEOTECHNICAL ENGINEERING UNIT

CONTENTS

SHEET NO. **DESCRIPTION** TITLE SHEET LEGEND (SOIL & ROCK) ROADWAY TITLE SHEET 4 - 28 PLAN SHEETS PAVEMENT INVESTIGATION SHEETS -L- WB 29 - 40 41 - 48 DYNAMIC CONE PENETROMETER DATA -L- WB 49 - 50 PAVEMENT CORE PHOTOGRAPHS -L- WB PAVEMENT INVESTIGATION SHEETS -L- EB 51 - 62 DYNAMIC CONE PENETROMETER DATA -L- EB 63 - 70 71 - 72 PAVEMENT CORE PHOTOGRAPHS -L- EB 73 - 74 LABORATORY TESTING SUMMARY 75 - 79 PROCTOR & CBR TESTING

PAVEMENT AND SUBGRADE INVESTIGATION

COUNTY CRAVEN PROJECT DESCRIPTION US 70 IMPROVEMENTS FROM THURMAN ROAD (SR 1116) TO THE HAVELOCK BYPASS INVENTORY

STATE PROJECT REFERENCE NO. 79 R-5777C

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BORCHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (INP-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS NIOCATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANTE OR GLARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

NOTES:

1. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.

2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL POWELL, S. H. STUDNICKY, R. T. MOODY, J. R. INVESTIGATED BY __POWELL, S. H. FIELDS, W. D. DRAWN BY NASH, A. A. CHECKED BY SANTANA, H. SUBMITTED BY JANUARY 2020

Prepared in the Office of: Consulting Engineers and Scientists

Hugo Santana 1/13/2020 -82Å7831FANAFDOM61

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REFERENCE

PROJECT REFERENCE NO.

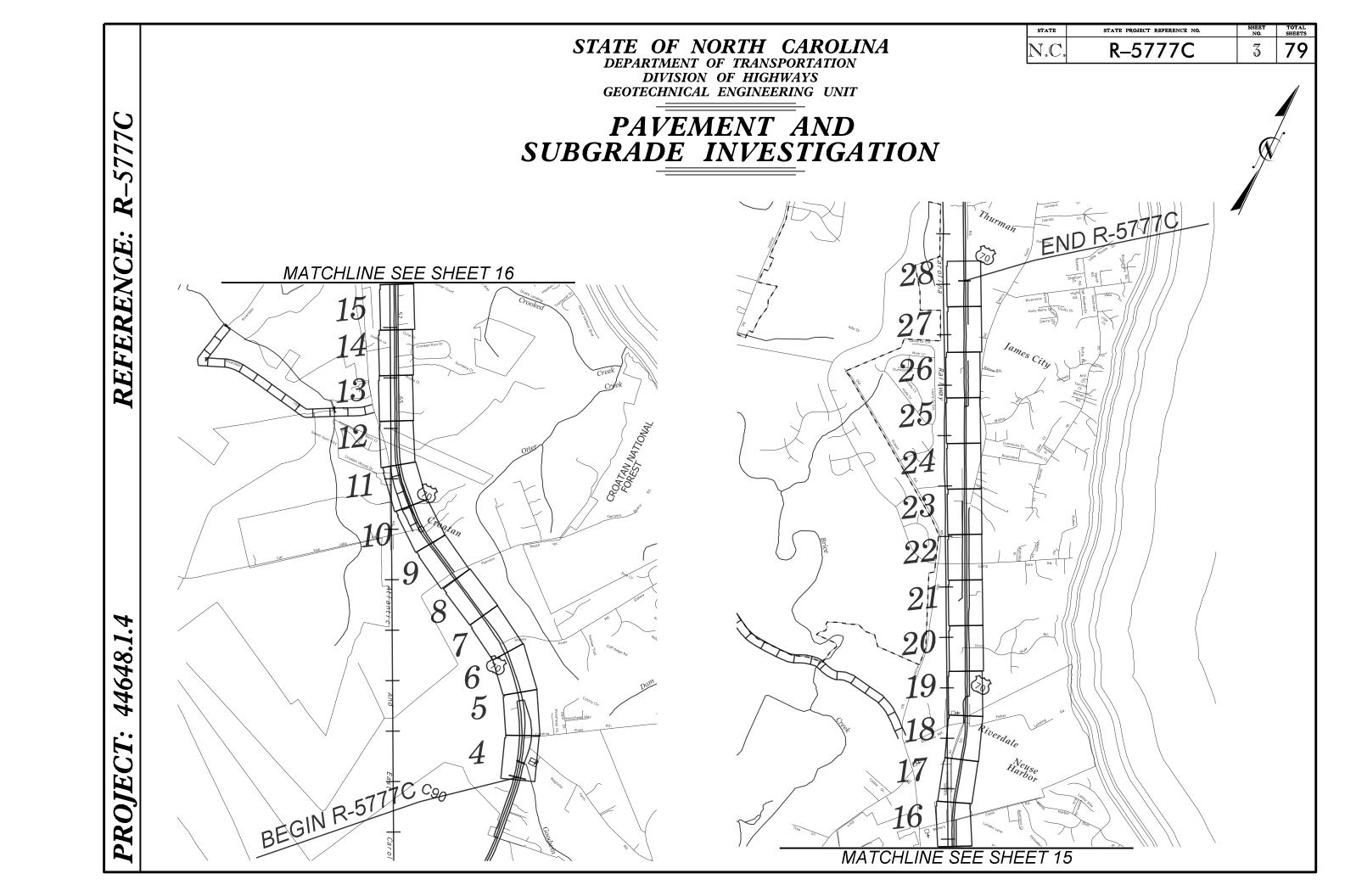
R-5777C

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT

SUBSURFACE INVESTIGATION

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION	GRADATION	ROCK DESCRIPTION	TERMS AND DEFINITIONS
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLICHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM DI586). SOIL CLASSIFICATION IS BASED ON THE AASHTO SYSTEM, BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING; CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH	WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE. <u>UNIFORMLY GRADED</u> - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. <u>GAP-GRADED</u> - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES. ANGULARITY OF GRAINS	HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED, AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOUL PIELD SPT REFUSAL. SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER. AQUIFER - A WATER BEARING FORMATION OR STRATA. ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.	ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS: WEATHERED NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES >	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
SOIL LEGEND AND AASHTO CLASSIFICATION GENERAL CLASS. GRANULAR MATERIALS (≤ 35%, PASSING *200) SILT-CLAY MATERIALS (*200) ORGANIC MATERIALS (*30%)	MINERALOGICAL COMPOSITION MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAQLIN, ETC.	ROCK (WR) 100 BLOWS PER FOOT IF TESTED. CRYSTALLINE ROCK (CR) 100 BLOWS PER FOOT IF TESTED. FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT WOULD YIELD SPT REFUSAL IF TESTED. ROCK TYPE INCLUDES GRANITE, GREISS, GABBRO, SCHIST, ETC.	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE.
GROUP A-1 A-3 A-2-2 A-4 A-5 A-6 A-7 A-1, A-2 A-4, A-5 A-6 A-7 CLASS. A-1-a A-1-b A-2-4 A-2-5 A-2-6 A-2-7 A-3 A-3 A-6, A-7 A-7 A-6, A-7	ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE. COMPRESSIBILITY SLIGHTLY COMPRESSIBLE LL < 31	NON-CRYSTALLINE NON-CRYSTALLINE ROCK (NCR)	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE. COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SLOPE.
SYMBOL	MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50 PERCENTAGE OF MATERIAL	COASTAL PLAIN COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD SEDIMENTARY ROCK SPT REFUSAL. ROCK TYPE INCLUDES LIMESTONE, SANDSTONE, CEMENTED SHELL BEDS, ETC.	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
**18	ORGANIC MATERIAL SILT - CLAY ORGANIC MATERIAL SOILS OTHER MATERIAL	WEATHERING FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING, ROCK RINGS UNDER	DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.
MATERIAL PASSING *40 LL 48 MX 41 MN 48 MX 41 MN 48 MX 41 MN 48 MX 41 MN 50ILS WITH LITTLE OR	TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE 1 - 10% LITLE ORGANIC MATTER 3 - 5% 5 - 12% LITTLE 10 - 20% MODERATELY ORGANIC 5 - 10% 12 - 20% SOME 20 - 35%	HAMMER IF CRYSTALLINE. VERY SLIGHT ROCK GENERALLY FRESH JOINTS STAINED SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN. (V SLI.) CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY, ROCK RINGS UNDER HAMMER BLOWS IF	OIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL. DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE
P1 6 MX NP 18 MX 18 MX 11 MN 11 MN 10 MX 18 MX 11 MN 11 MN 11 MN MODERATE GROUP INDEX 8 8 8 8 4 MX 8 MX 12 MX 16 MX N0 MX ANOINTS OF ORGANIC GROUP STORMS GROUP STORMS	HIGHLY ORGANIC > 10% > 20% HIGHLY 35% AND ABOVE GROUND WATER	OF A CRYSTALLINE NATURE. SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO (SLI.) 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR	LINE OF DIP, MEASURED CLOCKWISE FROM NORTH. FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
USUAL TYPES STONE FRAGS. FINE SILTY OR CLAYEY SILTY CLAYEY MATTER OF MAJOR GRAVEL, AND SAND GRAVEL AND SAND SOILS SOILS GRAVEL AND SAND GRAVEL AND SAND SOILS SOILS	▼ WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING ▼ STATIC WATER LEVEL AFTER 24 HOURS ▼ MATER LEVEL AFTER 25 HOURS	CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS. MODERATE SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN (MOD.) GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.
CEN.RATING	E PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA SPRING OR SEEP	DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED WITH FRESH ROCK. MODERATELY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE
CONSISTENCY OR DENSENESS COMMONTAINESS OR RANGE OF STANDARD RANGE OF UNCONFINED	MISCELLANEOUS SYMBOLS The roadway embankment (re) 25/025 dip & dip direction	SEVERE AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH (MOD. SEV.) AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. IF TESTED, WOULD YIELD SPT REFUSAL	FIELD. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
CUNDIDIENCT (N-VALUE) (TONS/FT ²) GENERALLY VERY LOOSE (4	WITH SOUL DESCRIPTION of ROCK STRUCTURES set on the soul symbol sou	SEVERE ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT (SEV.) REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN.	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.
CARLINEL	ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT AUGER BORING CONE PENETROMETER	IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF VERY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE	MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTTLING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
VERY SOFT < 2 < 0.25 GENERALLY SOFT 2 TO 4 0.25 TO 0.5	INFERRED SOIL BOUNDARY	SEVERE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK (V SEV.) REMAINING, SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <u>IF TESTED, WOULD YIELD SPT N VALUES < 100 BPF</u>	OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
SILT-CLAY	INFERRED ROCK LINE MONITORING WELL WITH CORE PIEZOMETER INSTALLATION SPT N-VALUE	COMPLETE ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS ALSO AN EXAMPLE.	ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
TEXTURE OR GRAIN SIZE	RECOMMENDATION SYMBOLS	ROCK HARDNESS VERY HARD CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK, BREAKING OF HAND SPECIMENS REQUIRES	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PAREN ROCK.
U.S. STO. SIEVE SIZE 4 10 40 60 200 270 OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053 COARSE FINE	UNDERCUT UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE UNCLASSIFIED EXCAVATION - UNSUITABLE WASTE UNCLASSIFIED EXCAVATION - EMBANKMENT OR BACKFILL	SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK. HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY, HARD HAMMER BLOWS REQUIRED TO DETACH HAND SPECIMEN.	SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
BOULDER COBBLE GRAVEL SAND SAND SILT CLAY (BLDR.) (COB.) (GR.) (CSE. SD.) (F SD.) (SL.) (CL.)	UNDERCUT ACCEPTABLE DEGRADABLE ROCK EPIDHINKPIENT OF BACKFILL ABBREVIATIONS	MODERATELY CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE HARD EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE DETACHED	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.
GRAIN MM 305 75 2.0 0.25 0.05 0.005 SIZE IN. 12 3 SOIL MOISTURE - CORRELATION OF TERMS	AR - AUGER REFUSAL MED MEDIUM VST - VANE SHEAR TEST BT - BORING TERMINATED MICA MICACEOUS WEA WEATHERED CL CLAY MOD MODERATELY 7 - UNIT WEIGHT CPT - CONE PENETRATION TEST NP - NON PLASTIC 7 - DORY UNIT WEIGHT	BY MODERATE BLOWS. MEDIUM CAN BE GROOVED OR GOUGED 0,05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT. CAN BE EXCAVATED IN SMALL CHIPS TO PEICES I INCH MAXIMUM SIZE BY HARD BLOWS OF THE POINT OF A GEOLOGIST'S PICK.	STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF I FOOT INTO SOIL WITH A 2 INCH DUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.
SOIL MOISTURE SCALE FIELD MOISTURE GUIDE FOR FIELD MOISTURE DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION	CSE COARSE ORG ORGANIC DMT - DILATOMETER TEST PMT - PRESSUREMETER TEST SAMPLE ABBREVIATIONS SAMPLE ABBREVIATIONS	SOFT CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK. CAN BE EXCAVATED IN FRAGMENTS FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
- SATURATED - USUALLY LIQUID; VERY WET, USUALLY (SAT.) FROM BELOW THE GROUND WATER TABLE	DPT - DYNAMIC PENETRATION TEST	PIECES CAN BE BROKEN BY FINGER PRESSURE. VERY CAN BE CARVED WITH KNIFE, CAN BE EXCAVATED READILY WITH POINT OF PICK, PIECES 1 INCH SOFT OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO 00 RORGATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.
PLASTIC SEMISOLID; REQUIRES DRYING TO	FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL RT - RECOMPACTED TRIAXIAL FRAGS FRAGMENTS W - MOISTURE CONTENT CBR - CALIFORNIA BEARING	FINGERNAIL. FRACTURE SPACING BEDDING	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK:
PLL + PLASTIC LIMIT -	HI HIGHLY V - VERY RATIO EQUIPMENT USED ON SUBJECT PROJECT	TERM SPACING TERM THICKNESS VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED 4 FEET	ELEVATION: FEET
OM OPTIMUM MOISTURE SL SHRINKAGE LIMIT - MOIST - (M) SOLID; AT OR NEAR OPTIMUM MOISTURE SU SHRINKAGE LIMIT REQUIRES ADDITIONAL WATER TO	DRILL UNITS: ADVANCING TOOLS: HAMMER TYPE: CME-45C CLAY BITS AUTOMATIC MANUAL	WIDE 3 TO 10 FEET THICKLY BEDDED 1.5 - 4 FEET MODERATELY CLOSE 1 TO 3 FEET THINLY BEDDED 0.16 - 1.5 FEET CLOSE 0.16 TO 1 FOOT VERY THINLY BEDDED 0.03 - 0.16 FEET	NOTES:
- DRY - (U) ATTAIN OPTIMUM MOISTURE	G* CONTINUOUS FLIGHT AUGER	VERY CLOSE LESS THAN 0.16 FEET THICKLY LAMINATED 0.008 - 0.03 FEET THINLY LAMINATED < 0.008 FEET THINLY LAMINATED < 0.008 FEET THINLY LAMINATED < 0.008 FEET THINLY LAMINATED = 0.008 FEET	
PLASTICITY PLASTICITY INDEX (PI) DRY STRENGTH NON PLASTIC 0-5 VERY LOW SLIGHTLY PLASTIC 6-15 SLIGHT	CME-550 HARD FACED FINGER BITS NAME SHEAR TEST TUNGCARBIDE INSERTS HAND TOOLS:	FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC. RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.	TEST LOCATION - PAVEMENT CORED, DCP, AUGER PROBE (CORE PHOTOGRAPH INCLUDED)
MODERATELY PLASTIC 16-25 MEDIUM HIGHLY PLASTIC 26 OR MORE HIGH	CASING W/ ADVANCER POST HOLE DIGGER PORTABLE HOIST TRICONE STEEL TEETH HAND AUGER	MODERATELY INDURATED GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE; BREAKS EASILY WHEN HIT WITH HAMMER.	TEST LOCATION - LOCATION AUGERED (NO CORE PHOTOGRAPH INCLUDED)
COLOR DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY).	CME 45B TRICONE TRUNGCARB. SOUNDING ROD X 41/4" THIN WALL CORE BARREL VANE SHEAR TEST	INDURATED GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE; DIFFICULT TO BREAK WITH HAMMER,	
MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.	X 31/4" SOLID STEM AUGERS	EXTREMELY INDURATED SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE:	

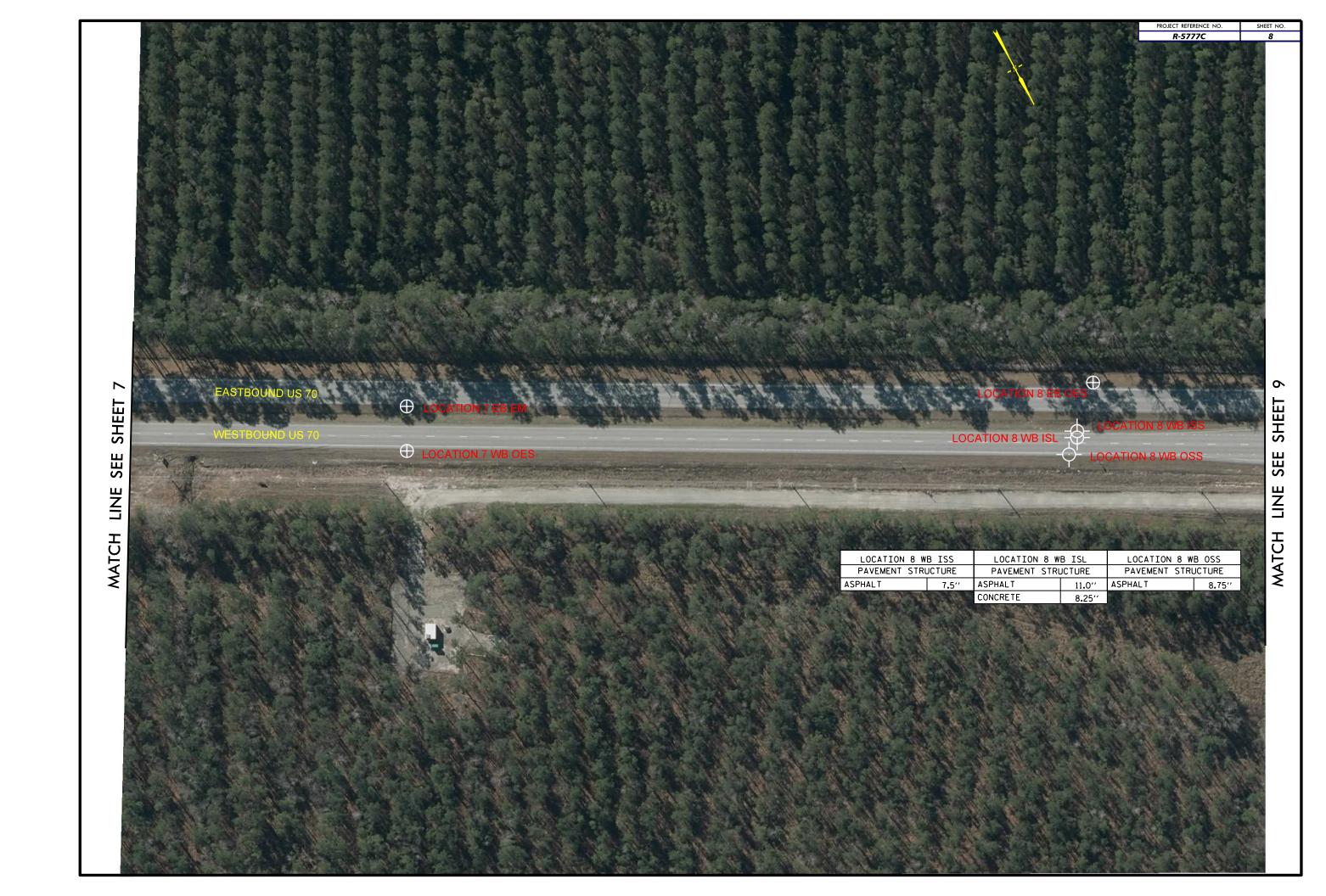




























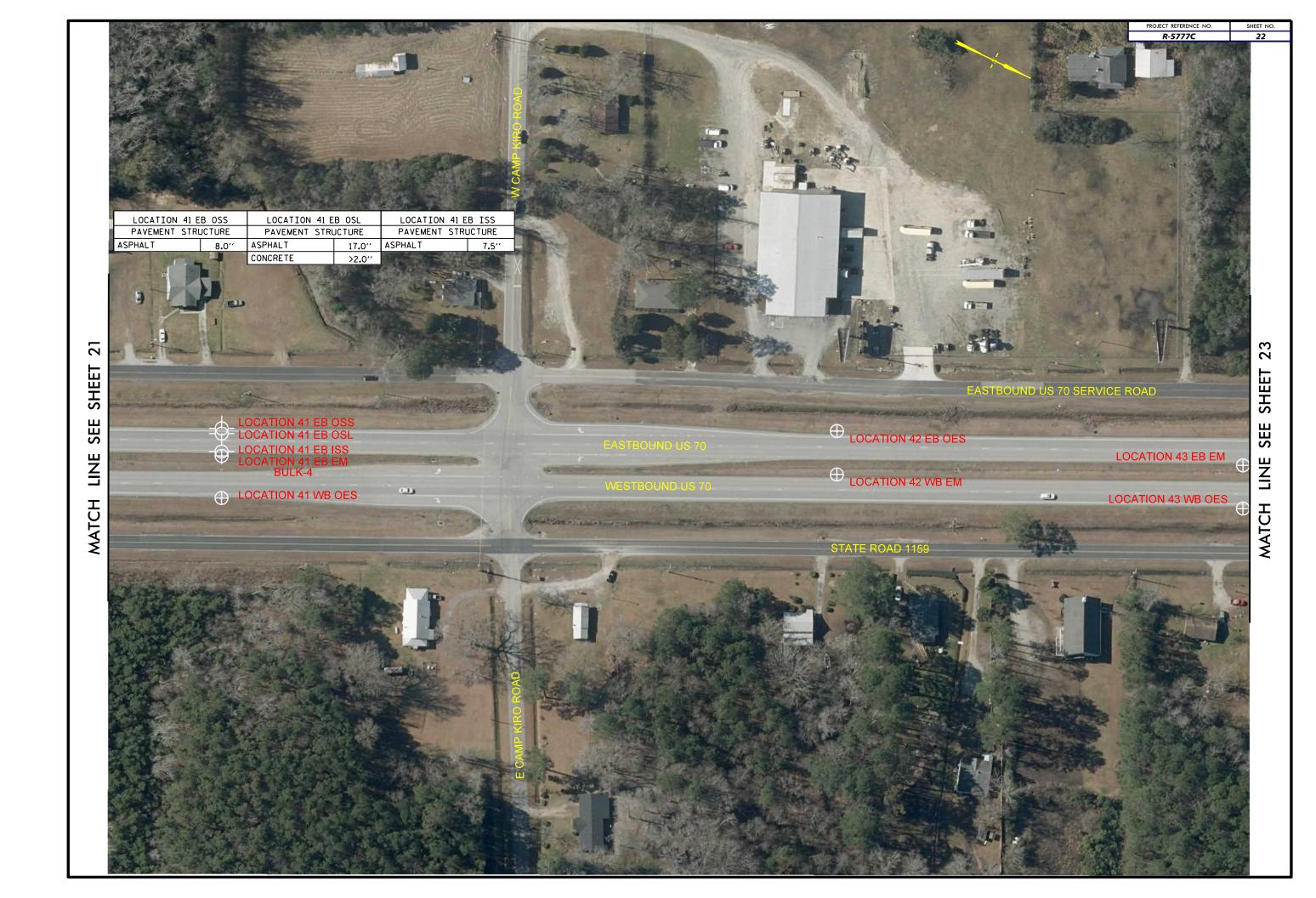
























County: CRAVEN

Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

 Date:
 7/22 - 7/30/19

 Notes By:
 POWELL, S. H.

		Width				Pav	rement St	tructure	, Thickness	Subgrade					GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
											T	1				
LOCATION 1 WB ISS	FILL 3	WB ISL 12.0	WB ISS 4.0	2.0 FY LT	S (LT)	ASPHALT (9.5)	9.5			0.8' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, FINE SANDY CLAY	S-8	A-6	М 6	LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN WB ISL AND WB OSL	446,480	2,613,545
		WB OSL 12.0	WB OSS 4.0							3.0 - 6.0 UNDIVIDED COASTAL PLAIN : BLACK, GRAY, FINE SANDY CLAY	REF S-4	A-6	М			
LOCATION 1 WB OSL				2.0 FW LT		ASPHALT ABC CONCRETE	12.0	NM	11.0	1.0' - 1.9' ROADWAY EMBANKMENT: ABC	REF S-23	A-2-4	M 1.	9	446,487	2,613,564
						(23.0)				*AUGER REFUSAL AT 1.9 FEET ON CONCRETE						
LOCATION 1 WB OSS				2.0 FW RT		ASPHALT ABC CONCRETE	8.25	NM	13.0	0.7' - 1.8' ROADWAY EMBANKMENT: ABC	REF S-23	A-2-4	M 1.	8	446,493	2,613,571
						(21.25)				*AUGER REFUSAL AT 1.8 FEET ON CONCRETE						
LOCATION 2 WB OES	CUT 2	WB ISL 12.0	WB ISS 4.5	6.0 FW RT	S (LT)					1.0' - 3.5' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-3	A-6	M 6	MODERATE SEVERITY TRANSVERSE CRACKING IN WB OSL AND WB ISL	446,872	2,613,239
		WB OSL 12.0	WB OSS 3.5							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	S-1	A-6	w	LOW SEVERITY LONGITUDINAL CRACKING IN WB OSS		
LOCATION 3 WB EM	FILL 3	WB ISL 12.0	WB ISS 4.0	5.0 FY LT	С					1.0' - 3.0' ROADWAY EMBANKMENT: BLACK, GRAY, FINE SANDY CLAY	REF S-8	A-6	М 6	LOW SEVERITY FATIGUE CRACKING IN WB ISS AND WB ISL	447,241	2,612,830
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-4	A-6	М	LOW SEVERITY TRANSVERSE CRACKING IN WB ISL LOW SEVERITY LONGITUDINAL CRACKING IN		
														CONSTRUCTION JOINT BETWEEN WB OSL AND WB ISL		
LOCATION 4 WB OES	GRADE LT	WB LTL 9.0		FW RT	S (LT)					1.0' - 3.5' ROADWAY EMBANKMENT: YELLOW-TAN, SILTY FINE TO COARSE SAND	REF S-12	A-2-4	D 6	LOW TO MODERATE SEVERITY FATIGUE CRACKING IN WB OSS	447,590	2,612,535
	FILL RT 3.5	WB ISL 12.5	WB OSS 3.5							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY FINE SAND	S-2	A-2-4	w	MODERATE SEVERITY TRANSVERSE CRACKING IN WB LTL		
		WB OSL 13.0												LOW SEVERITY TRANSVERSE CRACKING IN WB ISL, WB OSL, AND WB RTL		
		WB RTL 12.5														
	<u> </u>						1				l					

Notes:

Project:

TIP:

44648.1.4

R-5777C

NB = Northbound OSL = Outside Lane SB = Southbound CL = Center Lane

EB = Eastbound
WB = Westbound
WP = Mile Post
MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane DECEL = Deceleration Lane LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane RT = Right LT = Left (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder OES = Outside Earth Shoulder EM = Earth Median FW = From White Line FY = From Yellow Line AR = Auger Refusal NM = Not Measured



County: 44648.1.4 CRAVEN R-5777C Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

Date: 7/22 - 7/30/2019 Notes By: POWELL, S. H.

		Width				Pave	ement St	ructure,	, Thickness	Subgrade					GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
	1 00.00		1,,,,,,,,,,				ı	T	1 1				1			
LOCATION 5 WB OES	GRADE LT	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	С					1.0' - 2.0' ROADWAY EMBANKMENT: BROWN-BLACK, SILTY CLAY	REF S-9	A-7-6	M 6	LOW TO MODERATE SEVERITY FATIGUE CRACKING IN WB ISS AND WB ISL	447,909	2,612,032
	FILL RT 2	WB OSL 12.0	WB OSL 4.0							2.0'- 4.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY FINE SAND	REF S-2	A-2-4	М	MODERATE TANSVERSE CRACKING IN WB ISS, WB ISL, AND WB OSL		
										4.0' - 6.0' UNDIVIDED COASTAL PLAIN: LIGHT GRAY, FINE SANDY CLAY	REF S-1	A-6	М	MODERATE EDGE CRACKING IN WB OSS		
LOCATION 6 WB EM	GRADE	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С					1.0' - 3.0' UNDIVIDED COASTAL PLAIN: BROWN, TAN, CLAYEY FINE TO COARSE SAND	REF S-5	A-2-6	M 6	LOW TO MODERATE TRANSVERSE CRACKING IN WB OSL AND WB ISL	448,098	2,611,602
		WB OSL 12.0	WB OSL 4.0							3.0'- 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-3	A-6	М	LOW SEVERITY FATIGUE CRACKING IN CENTER OF WB ISL		
LOCATION 7 WB OES	FILL 3.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	С					1.0' - 3.5' ROADWAY EMBANKMENT: BLACK, GRAY, FINE SANDY CLAY	S-3	A-6	M 6	LOW SEVERITY TRANSVERSE CRACKING IN WB OSS, WB OSL, WB ISL, AND WB ISS	448,367	2,611,185
		WB OSL 12.0	WB OSS 3.5							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK- GRAY, FINE TO COARSE SANDY CLAY	REF S-1	A-6	w	LOW SEVERITY LONGITUDINAL CRACKING IN WB ISL		
LOCATION 8 WB ISS	GRADE	WB ISL 12.5	WB ISS 4.0	2.0 FY LT	С	ASPHALT (7.5)	7.5			0.6' - 3.0' UNDIVIDED COASTAL PLAIN: BLACK, SILTY FINE SAND	REF S-2	A-2-4	M 6	LOW TO MODERATE SEVERITY FATIGUE CRACKING IN CENTER AND INSIDE WHEEL PATH OF WB ISL	448,734	2,610,448
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY CLAY	S-9	A-7-6	w	LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN WB OSL AND WB ISL		
LOCATION 8 WB ISL				3.0 FY RY		ASPHALT CONCRETE (19.25)	11.0	8.25		1.6' - 6.0' UNDIVIDES COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-1	A-6	W 6	_	448,741	2,610,451
LOCATION 8				2.0		ASPHALT								-		
WB OSS				FW RT		(8.75)	8.75			0.7' - 2.5' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, TAN, FINE SANDY CLAY	REF S-3	A-6	M 6		448,754	2,610,470
										2.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, TAN, FINE SANDY CLAY	S-4	A-6	W			
LOCATION 9 WB OES	GRADE	WB ISL 13.0	WB ISS 4.0	5.5 FW RT						1.0' - 2.0' UNDIVIDED COASTAL PLAIN: TAN, YELLOW, SILTY FINE SAND	REF S-2	A-2-4	M 6	LOW SEVERITY TRANSVERSE CRACKING IN WB ISS, WB ISL, WB OSL, AND WB OSS	449,032	2,609,972
		WB OSL 12.5	WB OSS 3.5							2.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, TAN, FINE SANDY CLAY	REF S-4	A-6	М	LOW SEVERITY FATIGUE CRACKING IN WB ISS		
				<u> </u>								<u> </u>				

Notes:

Project:

TIP:

 $\overline{NB} = N$ orthbound OSL = Outside Lane SB = Southbound CL = Center Lane

EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane DECEL = Deceleration Lane

RT = Right LT = Left (I) = Inside

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RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median

FW = From White Line FY = From Yellow Line AR = Auger Refusal NM = Not Measured



County: CRAVEN

Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

 Date:
 7/22 - 7/30/2019

 Notes By:
 POWELL, S. H.

		Width				Pave	ement S	tructure ,	Thickness	Subgrade					GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
LOCATION 10 WB EM	FILL 3.5	WB ISL 12.0	WB ISS 4.0	7.0 FY LT	C					1.0' - 3.5' ROADWAY EMBANKMENT: BLACK, SILTY FINE SAND	REF S-2	A-2-4	M 6	MODERATE SEVERITY TRANSVERSE CRACKING IN WB OSL, WB ISL, WB OSS, AND WB ISS	449,272	2,609,450
		WB OSL 12.0	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE SAND	S-10	A-2-4	W	LOW SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB ISL		
LOCATION 11 WB OES	FILL 2.5	WB LTL 11.5	WB ISS 2.5	4.0 FW RT						1.0' - 2.5' ROADWAY EMBANKMENT: BROWN, BLACK, CLAYEY FINE TO COARSE SAND	S-5	A-2-6	M 6	LOW SEVERITY TRANSVERSE CRACKING IN WB LTL LOW SEVERITY LONGITUDINAL CRACKING IN WB ISL	449,758	2,608,714
		WB ISL 12.0	WB OSS 3.0							2.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-4	A-6	М	LOW SEVERITY FATIGUE CRACKING WB OSL		
		WB OSL 12.5														
		WB RTL 13.0														
LOCATION 12 WB EM	FILL 3	WB ISL 12.0	WB ISS 4.0	6.0 FY LT						DCP ONLY DUE TO POSSIBLE UTILITY				LOW SEVERITY FATIGUE CRACKING IN OUTSIDE WHEEL PATH OF WB ISL, CENTER OF WB OSL, AND OUTSIDE WHEEL PATH OF WB OSL	450,016	2,608,303
		WB OSL 12.0	WB OSS 4.0													
LOCATION 13 WB OES	FILL 3	WB ISL 12.0	WB ISS 4.0	6.0 FW RT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, CLAYEY FINE TO COARSE SAND	REF S-5	A-2-6	M 6	LOW SEVERITY TRANSVERSE CRACKING IN OUTSIDE WHEEL PATH OF WB ISL	450,399	2,607,957
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, SILTY FINE SAND	REF S-10	A-2-4	W			
LOCATION 14 WB EM	FILL 3.5	WB ISL 12.5	WB ISS 4.0	6.0 FY LT						1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, BLACK, FINE TO COARSE SANDY CLAY	REF S-8	A-6	M 6	LOW SEVERITY FATIGUE CRACKING IN OUTSIDE WHEEL PATH OF WB ISL AND WB OSL	450,733	2,607,563
		WB OSL 12.0	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, SILTY FINE SAND	REF S-10	A-2-4	W	LOW SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT OF WB OSL AND WB ISL		

Project:

TIP:

44648.1.4

R-5777C

MP = Mile Post

(O) = Outside



County: CRAVEN

Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

 Date:
 7/22 - 7/30/2019

 Notes By:
 POWELL, S. H.

		Width				Pave	ement S	tructure	, Thickn	ess	Subgrade					GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 15	FILL LT	W/D ICI	WBISS	1 20		ASPHALT	ı	ı	1	т т	· •		1	T	LOW SEVERITY TRANSVERSE CRACKING IN WB OSL	1	T
WB ISS	3.5	WB ISL 12.0	4.0	2.0 FY LT	S (RT)	(9.0)	9.0				0.8' - 3.5' ROADWAY EMBANKMENT: YELLOW, TAN, SILTY COARSE TO FINE SAND	REF S-6	A-2-4	M 6	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL	451,295	2,607,122
	FILL RT 2	WB OSL 12.0	WB OSS 4.0								3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK FINE SANDY CLAY	REF S-4	A-6	W	PATHS PF WB OSL		
LOCATION 15 WB OSL				3.0 FW LT		ASPHALT (12.0)	12.0				1.0' - 2.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY COARSE TO FINE SAND	S-6	A-2-4	W 6		451,299	2,607,129
											2.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-4	A-6	W			
LOCATION 15 WB OSS				2.0 FW RT	-	ASPHALT (8.25)	8.25				0.7' - 2.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY COARSE TO FINE SAND	REF S-6	A-2-4	W 6		451,308	2,607,147
											2.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-4	A-6	W			
LOCATION 16 WB OES	FILL 2.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	C						1.0' - 2.5' ROADWAY EMBANKMENT: GRAY, BROWN, SILTY FINE SAND	REF S-2	A-2-4	M 6	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB ISL	451,740	2,606,911
		WB OSL 12.0	WB OSS 4.0								2.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-4	A-6	W	MODERATE SEVERITY RUTTING IN MIDDLE LANE		
LOCATION 17 WB EM	FILL 4	WB ISL 12.5	WB ISS 4.0	6.0 FW LT	C						1.0' - 4.0' ROADWAY EMBANKMENT: BLACK, GRAY, SILTY FINE SAND	REF S-2	A-2-4	M 6	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB ISL	452,201	2,606,647
		WB OSL 12.0	WB OSS 4.0								4.0' - 6.0' UNDIVIDED COASTAL PLAIN: TAN, BLACK, FINE SANDY CLAY	REF S-1	A-6	W			
LOCATION 18 WB OES	FILL 3	WB LTL 11.0	WB ISS 4.0	6.0 FW RT	C						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, SILTY FINE SAND	REF S-2	A-2-4	W 6	LOW SEVERITY TRANSVERSE CRACKING IN WB OSL AND WB ISL	452,664	2,606,482
		WB ISL 12.0	WB OSS 4.0								3.0' - 6.0' UNDIVIDED COASTAL PLAIN: TAN, BLACK. FINE SANDY CLAY	REF S-1	A-6	W	LOW SEVERITY EDGE CRACKING IN WB ISS MODERATE SEVERITY LONGITUDINAL CRACKING IN		
		WB OSL 12.5												М	WB RTL		
		WB RTL 12.0									*AUGER REFUSAL AT 1.9 FEET ON CONCRETE				1		
LOCATION 19 WB OES	FILL 3	WB ISL 12.0	WB ISS 4.0	FW RT							1.0' - 3.0' ROADWAY EMBANKMENT: TAN, BROWN, SILTY FINE SAND	REF S-2	A-2-4	M 6	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB ISL	453,088	2,606,268
		WB OSL 12.5	WB OSS 4.0								3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	S-7	A-6	М			

Notes:

Project:

TIP:

44648.1.4

R-5777C

NB = Northbound OSL = Outside Lane

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COL = Collector Lane ACCEL = Acceleration Lane DECEL = Deceleration Lane LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane RT = Right LT = Left (I) = Inside

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der FW = From White Line FY = From Yellow Line AR = Auger Refusal NM = Not Measured



7/22 - 7/30/2019

POWELL, S. H.

PAVEMENT INVESTIGATION DATA SHEET

County: CRAVEN

Date: Notes By: Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

		Width				Pav	ement S	tructure	, Thickness	Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"		Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
							1										
LOCATION 20 WB EM	FILL 3	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, GRAY, SILTY FINE SAND	S-18	A-2-4	М	6	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF THE WB OSL AND WB ISL	453,529	2,606,017
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-15	A-6	М				
LOCATION 21 WB OES	FILL 4	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	. C					1.0' - 4.0' ROADWAY EMBANKMENT: BLACK, BROWN SILTY FINE SAND	REF S-2	A-2-4	М	6	LOW SEVERITY TRANSVERSE CRACKING IN WB OSL AND WB OSS	454,018	2,605,824
		WB OSL 12.0	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	S-11	A-6	М				
LOCATION 22 WB EM	FILL 4	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С					1.0' - 4.0' ROADWAY EMBANKMENT: GRAY, BROWN, FINE SANDY CLAY	REF S-8	A-6	М	6	LOW SEVERITY FATIGUE CRACKING IN THE OUTSIDE WHEEL PATH OF WB ISL	454,443	2,605,581
		WB OSL 12.0	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-13	A-6	М				
LOCATION 23 WB ISS	FILL 4	WB ISL 12.5	WB ISS 4.0	2.0 FY LT	С	ASPHALT (10.0)	10.0			0.8' - 4.0' ROADWAY EMBANKMENT: GRAY, FINE TO COARSE SANDY SILT	REF S-19	A-4	W	6	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS PF WB OSL	455,036	2,605,302
		WB OSL 12.5	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-20	A-6	М		LOW SEVERITY TRANSVERSE CRACKING IN WB OSL		
LOCATION 23 WB ISL				2.0 FY RT		ASPHALT (11.25)	11.25			1.0' - 4.0' ROADWAY EMBANKMENT: GRAY, FINE TO COARSE SANDY SILT	S-19	A-4	W	6		455,039	2,605,309
										4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	S-20	A-6	М				
LOACTION 23 WB OSS				2.0 FW LT		ASPHALT (9.25)	9.25			0.8' - 4.0' ROADWAY EMBANKMENT: YELLOW, TAN, SILTY FINE TO COARSE SAND, TRACE GRAVEL	S-12	A-2-4	М	6		455,049	2,605,328
										4.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-11	A-6	W				
LOCATION 24 WB OES	FILL 3	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	C					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, FINE SANDY CLAY	REF S-8	A-6	М	6	MODERATE BLOCK AND FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB OSL	455,522	2,605,108
		WB OSL 12.5	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-11	A-6	М		LOW SEVERITY TRANSVERSE CRACKING IN WB OSS AND INSIDE WHEEL PATH OF WB ISL		
LOCATION 25 WB EM	FILL 4	WB ISL 12.5	WB ISS 4.0	6.0 FY LT	С					1.0' - 4.0' ROADWAY EMBANKMENT: GRAY, TAN SILTY FINE SAND	S-21	A-2-4	М	6	MODERATE SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB ISL AND WB OSL	455,925	2,604,875
		WB OSL 12.0	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-11	A-6	М				

Notes:

WB = Westbound

Project:

TIP:

44648.1.4

R-5777C

NB = Northbound OSL = Outside Lane SB = Southbound EB = Eastbound

CL = Center Lane ISL = Inside Lane

MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane

DECEL = Deceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane

RT = Right LT = Left

(I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median

FW = From White Line FY = From Yellow Line AR = Auger Refusal NM = Not Measured



7/24 - 7/27/2019

POWELL, S. H.

PAVEMENT INVESTIGATION DATA SHEET

County: CRAVEN

Notes By: Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

		Width				Pav	ement S	tructure	, Thickness	Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 26 WB OES	FILL 3.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	C					1.0' - 3.5' ROADWAY EMBANKMENT: BLACK, GRAY, TAN, SILTY FINE SAND	REF S-2	A-2-4	М	6	MODERATE SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB ISL AND WB OSL	456,493	2,604,645
		WB OSL 12.5	WB OSS 4.5							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK FINE SANDY CLAY	S-13	A-6	М				
LOCATION 27 WB EM	FILL 3.5	WB ISL 12.5	WB ISS 4.0	6.0 FW LT	S (RT)					1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, GRAY, TAN, SILTY FINE SAND	REF S-21	A-2-4	М	6	MODERATE SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB OSL	457,385	2,604,224
		WB OSL 12.0	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, FINE SANDY CLAY	REF S-13	A-6	W		LOW SEVERITY FATIGUE CRACKING IN OUTSIDE WHEEL PATH OF WB OSL AND BOTH WHEEL PATHS OF WB ISL		
LOCATION 28 WB OES	FILL 3	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	С					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, FINE SANDY CLAY	REF S-8	A-6	М		LOW TO MODERATE TRANSVERSE CRACKING IN WB OSL AND WB OSS	457,861	2,604,125
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-11	A-6	М		MODERATE SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB OSL		
LOCATION 29 WB ISS	FILL 3	WB ISL 12.0	WB ISS 4.0	2.0 FY LT	С	ASPHALT (7.5)	7.5			0.6' - 3.0' ROADWAY EMBANKMENT: GRAY, TAN, FINE TO COARSE SANDY SILT	REF S-19	A-4	W		MODERATE SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB ISL	458,500	2,603,920
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-20	A-6	W		HIGH SEVERITY LONGITUDINAL CRACKING IN INSIDE WHEEL PATH OF WB OSL		
LOACTION 29 WB OSL				1.5 FW LT		ASPHALT (11.5)	11.5			1.0' - 3.0' ROADWAY EMBANKMENT: GRAY, SILTY FINE TO COARSE SAND	REF S-14	A-2-4	W	6		458,505	2,603,937
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, TAN, FINE SANDY CLAY	S-15	A-6	М				
LOCAITON 29 WB OSS				2.0 FW RT		ASPHALT (8.75)	8.75			0.7' - 3.0' ROADWAY EMBANKMENT: GRAY, TAN, SILTY FINE TO COARSE SAND	S-14	A-2-4	W	6		458,508	2,603,949
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-13	A-6	М				
LOCATION 30 WB OES	FILL 3.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	С					1.0' - 3.5' ROADWAY EMBANKMENT: YELLOW, BROWN, SILTY FINE SAND	S-16	A-2-4	М	6	NO DISTRESSES OBSERVED	458,986	2,603,826
		WB OSL 12.0	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, TAN, FINE SANDY CLAY	REF S-11	A-6	М				
LOCATION 31 WB EM	FILL 2	WB ISL 12.5	WB ISS 4.0	6.0 FY LT	S (LT)					1.0' - 2.0' ROADWAY EMBANKMENT: BROWN, GRAY, SILTY FINE SAND	REF S-21	A-2-4	М	6	MODERATE SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF WB ISL	459,455	2,603,649
		WB OSL 12.0	WB OSS 4.0							2.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, BLACK, FINE SANDY CLAY	REF S-13	A-6	М				

Notes:

Project:

TIP:

44648.1.4

R-5777C

NB = Northbound SB = Southbound EB = Eastbound

WB = Westbound

OSL = Outside Lane CL = Center Lane ISL = Inside Lane

MP = Mile Post

COL = Collector Lane

ACCEL = Acceleration Lane DECEL = Deceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane

RT = Right LT = Left (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median

FW = From White Line FY = From Yellow Line AR = Auger Refusal NM = Not Measured

Date:



County: CRAVEN

Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width				Pav	ement St	ructure,	Thickness	Subgrade					GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION		IA/D IOI	14/D 100	0.0					T T		<u> </u>			LOW OF VEDITY DI COY OD LOYING IN DOTH WHEE	•	
LOCATION 32 WB OES	FILL 3.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	С					1.0' - 3.5' ROADWAY EMBANKMENT: YELLOW, TAN, SILTY FINE SAND	REF S-16	A-2-4	M 6	LOW SEVERITY BLOCK CRACKING IN BOTH WHEEL PATHS OF WB ISL AND INSIDE WHEEL PATH OF WB OSL	459,980	2,603,480
		WB OSL 12.0	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, SILTY FINE TO COARSE SAND	REF S-14	A-2-4	М	MODERATE FATIGUE CRACKING IN WB ISL		
LOCATION 33 WB OES	FILL 4	WB ISL 12.0	WB ISS 3.5	6.0 FW RT	С					1.0' - 4.0' ROADWAY EMBANKMENT: YELLOW, TAN, BROWN, SILTY FINE TO COARSE SAND	REF S-16	A-2-4	M 6	MODERATE SEVERITY FATIGUE CRACKING ALONG INSIDE WHEEL PATH OF WB OSL	460,426	2,603,272
		WB OSL 12.5	WB OSS 5.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, BLACK, FINE TO COARSE SANDY CLAY	S-17	A-6	М			
LOCATION 34 WB EM	FILL 3	WB ISL 12.5	WB ISS 3.5	6.0 FY LT	С					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, GRAY, BLACK, FINE SANDY CLAY	REF S-39	A-6	M 6	LOW SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB ISL	460,884	2,603,015
		WB OSL 12.0	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE TO COARSE SANDY SILT	REF S-19	A-4	М	LOW SEVERITY TRANSVERSE CRACKING IN WB OSL		
LOCATION 35 WB OES	FILL 2.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	С					1.0' - 2.5' ROADWAY EMBANKMENT: BROWN, GRAY, FINE SANDY CLAY	REF S-8	A-6	M 6	LOW SEVERITY TRANSVERSE CRACKING IN BOTH WHEEL PATHS OF WB OSL	461,343	2,602,838
		WB OSL 12.5	WB OSS 4.0							2.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, TAN, FINE SANDY CLAY	REF S-11	A-6	М	LOW SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB OSL AND INSIDE WHEEL PATH OF WB ISL		
														SHOVING ON WB OSL		
LOCATION 36 WB EM	GRADE	WB LTL 10.5	WB ISS 4.5	6.0 FY LT	С					1.0' - 5.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, BLACK, FINE TO COARSE SANDY SILT	REF S-19	A-4	M 6	MODERATE SEVERITY FATIGUE CRACKING IN WB ISS LOW SEVERITY FATIGUE CRACKING IN OUTSIDE	461,759	2,602,594
		WB ISL 10.5	WB OSS 5.5							5.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-15	A-6	W	WHEEL PATH OF WB ISL MODERATE SEVERITY LONGITUDINAL CRACKING		
		WB OSL 12.0												AT CONSTRUCTION JOINT OF WB RTL AND WB OSL		
		WB RTL 10.5														
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Project:

TIP:

44648.1.4

R-5777C

(O) = Outside



County: CRAVEN Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

Date: 7/22 - 7/30/2019 Notes By: POWELL, S. H.

		Width				Pav	ement S	tructure	, Thickn	ess	Subgrade					GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 37 WB ISS	FILL 3	WB ISL 12.0	WB ISS 4.0	8.0 FW RT	С	ASPHALT (9.0)	9.0				0.8' - 4.0' ROADWAY EMBANKMENT: GRAY, BROWN, BLACK, FINE TO COARSE SANDY SILT	REF S-19	A-4	M 6	LO SEVERITY FATIGUE CRACKING ALONG INSIDE WHEEL PATH OF WB OSL	462,294	2,602,354
		WB OSL 12.5	WB OSS 4.0								4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-20	A-6	W			
LOCATION 37 WB ISL				2.0 FY LT		ASPHALT (12.0)	12.0				1.0' - 3.0' ROADWAY EMBANKMENT: YELLOW, TAN, SILTY FINE SAND	REF S-12	A-2-4	W 6		462,298	2,602,361
											3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-13	A-6	М			
LOCATION 37 WB OSS				2.0 FW RT		ASPHALT (9.0)	9.0				0.8' - 3.0' ROADWAY EMBANKMENT: GRAY, BLACK, TAN, SILTY FINE SAND	REF S-14	A-2-4	M 6		462,291	2,602,386
											3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-15	A-6	М			
LOCATION 38 WB OES	GRADE	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	S LT						1.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, YELLOW, TAN, FINE SANDY CLAY	REF S-17	A-6	M 6.0	RUTTING IN WB OSL AND WB ISL LOW TO MODERATE SEVERITY LONGITUDINAL	462,742	2,602,177
		WB OSL 12.5	WB OSS 4.0												CRACKING IN WB OSL ALONG CONSTRUCTION JOINT OF WB ISL		
LOCATION 39 WB EM	FILL 3	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С						1.0' - 4.0' ROADWAY EMBANKMENT: GRAY, BROWN, SILTY FINE SAND	REF S-21	A-2-4	M 6	LOW SEVERITY TRANSVERSE CRACKING IN WB ISL WB ISL, AND WB OSS	463,217	2,601,914
		WB OSL 12.0	WB OSS 4.0								4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE TO COARSE SANDY SILT	REF S-19	A-4	w	LOW SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT BETWEEN WB OSL AND WB ISL		
LOCATION 40 WB OES	FILL 4	WB ISL 12.5	WB ISS 3.5	6.0 FW RT	С						1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, GRAY, FINE SANDY CLAY	REF S-11	A-6	M 6	LOW SEVERITY TRANSVERSE CRACKING IN WB OSL, WB ISL, WB OSS, AND WB ISS	463,666	2,601,743
		WB OSL 12.0	WB OSS 4.0								4.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, TAN, FINE SANDY CLAY	REF S-13	A-6	М	LOW SEVERITY LONGITUDINAL CRACKING IN INSIDE WHEEL PATH OF WB OSL AND ALONG CONSTRUCTION JOINT BETWEEN WB OSL AND WB ISL		
															LOW SEVERITY EDGE CRACKING IN WB ISS		
LOCATION 41 WB OES	FILL 3	WB ISL 12.0		FW RT							1.0' - 3.0' ROADWAY EMBANKMENT: GRAY, BROWN, FINE SANDY CLAY	REF S-11	A-6	M 6	LOW TO MODERATE SEVERITY LONGITUDINAL CRACKING ALONG THE CONSTRUCTION JOINT BETWEEN WB OSL AND WB OSS	463,992	2,601,586
		WB OSL 12.5	WB OSS 4.0								3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-13	A-6	М	LOW TO MODERATE TRANSVERSE CRACKING THROUGH ALL WB LANES		
															LOWSEVERITY FATIGUE CRACKING IN THE OUTSIDE WHEEL PATH OF WB ISL		

Notes:

Project:

TIP:

44648.1.4

R-5777C

 $\overline{NB} = N$ orthbound OSL = Outside Lane

SB = Southbound CL = Center Lane EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane DECEL = Deceleration Lane RTL = Right Turn Lane

RT = Right LT = Left (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median



County: CRAVEN

Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

 Date:
 7/22 - 7/30/2019

 Notes By:
 POWELL, S. H.

		Width				Pav	ement S	tructure	, Thickness	Subgrade					GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
LOCATION 42 WB EM	GRADE	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С					1.0' - 3.0' - UNDIVIDED COASTAL PLAIN: BROWN, GRAY, BLACK, SILTY FINE SAND	REF S-21	A-2-4	M 6	LOW SEVERITY LONGITUDINAL CRACKING ALONG THE WB OSL CONSTRUCTION JOINT WITH WB ISL	464,658	2,601,231
		WB OSL 11.5	WB OSS 4.5							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-20	A-6	М	SHOVING ON WB ISL		
LOCATION 43 WB OES	FILL 3.5	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	C					1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, BLACK, SILTY FINE SAND	REF S-21	A-2-4	М 6	LOW SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF WB OSL AND BOTH WHEEL PATHS OF WB ISL	465,125	2,601,051
		WB OSL 12.0	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	S-22	A-6	М			
LOCATION 44 WB ISS	FILL 3	WB ISL 12.0	WB ISS 4.0	2.0 FY LT	С	ASPHALT ABC (9.3)	9.25			0.8' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	М 6	LOW SEVERITY TRANSVERSE CRACKING IN BOTH WHEEL PATHS OF WB OSL AND THE OUTSIDE WHEEL PATH OF WB ISL	465,636	2,600,773
		WB OSL 11.5	WB OSS 4.5							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, BLACK, FINE SANDY CLAY	S-26	A-6	М	LOW SEVERITY FATIGUE CRACKING IN THE WB ISL AND WB ISS		
LOCATION 44 WB OSL				2.0 FW LT		ASPHALT ABC (11.3)	11.25			0.9' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	N 6		465,645	2,600,791
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-22	A-6	М			
LOCATION 44 WB OSS				2.0 FW RT		ASPHALT ABC (9.5)	9.5			0.8' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY FINE TO COARSE SAND	S-23	A-2-4	N 6		465,649	2,600,800
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-22	A-6	М			
LOCATION 45 WB EM	FILL 3.5	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С					1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, GRAY, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	М 6	LOW SEVERITY FATIGUE CRACKING IN CENTER OF WB OSL	466,371	2,600,421
		WB OSL 12.5	WB OSS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, TAN, YELLOW, FINE SANDY CLAY	S-27	A-6	М			
LOCATION 46 WB OES	FILL 3	WB ISL 12.5	WB ISS 3.5	6.0 FW LT	С					1.0' - 3.0' ROADWAY EMBANKMENT: YELLOW, TAN, SILTY FINE TO COARSE SAND	REF S-12	A-2-4	М 6	SHOVING IN WB ISL LOW SEVERITY LONGITUDINAL CRACKING IN INSIDE	466,834	2,600,242
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-22	A-6	М	WHEEL PATH OF WB OSL LOW SEVERITY TRANSVERSE CRACKING IN INSIDE WHEEL PATH OF WB ISL		
														LOW SEVERITY EDGE CRACKING IN WB ISS		

Project:

TIP:

44648.1.4

R-5777C

MP = Mile Post

(O) = Outside



County: CRAVEN

Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

 Date:
 7/22 - 7/30/2019

 Notes By:
 POWELL, S. H.

		Width				Pave	ement St	ructure,	Thickness	Subgrade					GPS Cod	ordinates
Test Location	Cut or F (Estimat in feet) Lane(s) (feet) (feet) Offset D					Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
LOCATION 47	T Eur	WD ICI	WDICC	0.0				ı		T	T	1 1		SHOVING IN WB OSL		
WB EM	4	12.0	WB ISL							1.0' - 4.0' ROADWAY EMBANKMENT: YELLOW, TAN, GRAY, SILTY FINE SAND	REF B-3	A-2-4	M 6	LOW SEVERITY FATIGUE CRACKING IN OUTSIDE	467,299	2,599,983
		WB OSL 12.0	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	М	WHEEL PATH OF WB ISL LOW SEVERITY EDGE CRACKING IN WB ISS		
LOCATION 48 WB OES	FILL 3	WB ISL 12.0	WB ISS 4.0	7.0 FW RT	C					1.0' - 3.0' ROADAY EMBANKMENT: YELLOW, TAN, SILTY FINE TO COARSE SAND	REF S-12	A-2-4	M 6	LOW SEVERITY FATIGU E CRACKING IN CENTER OF WB OSL	467,621	2,599,872
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-22	A-6	М	SHOVING IN WB OSL LOW SEVERITY LONGITUDINAL CRACKING IN INSIDE		
														WHEEL PATH OF WB OSL		
LOCATION 49 WB EM	FILL 3	WB ISL 12.5	WB ISS 4.0	6.0 FY LT	С					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, TAN, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	M 6	SHOVING IN WB OSL LOW SEVERITY EDGE CRACKING ON WB ISS	468,042	2,599,634
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, TAN, FINE SANDY CLAY	REF S-27	A-6	М			
LOCATION 50 WB OES	FILL 3	WB LTL 8.0	WB ISS 4.0	9.0 FW RT	C					1.0' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, SILTY FINE SAND	REF S-21	A-2-4	M 6	MODERATE LONGITUDINAL CRACKING IN WB RTL CONTRUSTION JOINT	468,519	2,599,458
		WB ISL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE SAND	S-24	A-2-4	М	SHOVING IN WB ISL MODERATE LONGITUDINAL CRACKING IN WB LTL		
		WB OSL 12.0												ALONG CONSTRUCTION JOINT		
		WB RTL 10.0														
LOCATION 51 WB EM	FILL 4.5	WB ISL 12.5	WB ISS 4.0	6.0 FY LT	С					1.0' - 4.5' ROADWAY EMBANKMENT: TAN, BROWN, GRAY, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	M 6	SHOVING ON WB OSL AND WB ISL LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL	468,962	2,599,197
		WB OSL 12.0	WB OSS 4.0							4.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-27	A-6	М	PATH OF WB ISL LOW SEVERITY EDGE CRACKING IN WB ISS		
	-															
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Notes:

Project:

TIP:

44648.1.4

R-5777C

NB = Northbound OSL = Outside Lane

SB = Southbound CL = Center Lane EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

ine COL e ACC

COL = Collector Lane ACCEL = Acceleration Lane DECEL = Deceleration Lane LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane RT = Right F LT = Left L (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

ght Lane OSS = Outside Shoulder ft Lane ISS = Inside Shoulder PS = Paved Shoulder OES = Outside Earth Shoulder EM = Earth Median



County: Project: 44648.1.4 CRAVEN TIP: R-5777C Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

Date: 7/22 - 7/30/2019 Notes By: POWELL, S. H.

		Width				Pav	ement S	ructure,	Thickness	Subgrade					GPS C	oordinates
Test Location	Cut or Fill (Estimated Depth in feet)	in feet) Lane(s) Lane(s) (feet) (feet) (feet) (feet) Crown "C" Super "S" Subgrade ii inches) inches) ABC (inche				Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting				
	T =		1	_			1	ı							-	
LOCATION 52 WB ISS	FILL 3	12.0	3.5	FY LT	С	ASPHALT (8.75)	8.75			0.7' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, GRAY, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	М	LOW SEVERITY FATIGUE CRACKING IN WB OSL AN 6 WB ISL	469,427	2,598,981
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	М	MODERATE LONGITUDINAL CRACKING IN INSIDE WHEEL PATH OF WB ISL		
LOCATION 52 WB OSL				1.0 FW LT		ASPHALT (10.25)	10.25			0.9' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, SILTY FINE TO COARSE SAND	REF B-3	A-2-4	М	6	469,436	2,599,000
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	М			
LOCATION 52 WB OSS				2.0 FW RT		ASPHALT (8.0)	8.0			0.7' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, SILTY FINE TO COARSE SAND	REF S-12	A-2-4	М	6	469,439	2,599,007
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	М			
LOCATION 53 WB OES	FILL 3	WB ISL 11.5	WB ISS 3.5	6.0 FW RT	C					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, BLACK, FINE SANDY CLAY	REF S-8	A-6	М	LOW TO MODERATE SEVERITY LONGITUDINAL 6 CRACKING IN WB RTL ALONG CONSTRUCTION JOINT	469,888	2,598,812
		WB OSL 12.5	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, SILTY FINE SAND	REF S-21	A-2-4	М	SHOVING IN WB OSL		
		WB RTL 11.5														
LOCATION 54 WB EM	FILL 4	WB ISL 12.0	WB ISS 4.0	5.0 FY LT	С					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, GRAY, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	М	LOW SEVERITY FATIGUE CRACKING IN BOTH WHE 6 PATHS OF WB OSL	L 470,308	2,598,561
		WB OSL 12.0	WB OSS 4.5							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-22	A-6	М	LOW SEVERITY FATIGUE CRACKING IN WB ISS		
LOCATION 55 WB OES	FILL 4	WB ISL 12.0	WB ISS 4.0	6.0 FW RT	C					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, BLACK, GRAY, FINE SANDY CLAY	REF S-8	A-6	М	MODERATE SEVERITY LONGITUDINAL CRACKING I WB RTL ALONG CONSTRUCTION JOINT	470,808	2,598,376
		WB OSL 12.0	WB OSS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE SAND	REF S-18	A-2-4	М	SHOVING IN WB OSL		
		WB RTL 8.5														
LOCATION 56 WB OES	FILL 3	WB ISL 12.0		FW RT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, CLAYEY FINE TO COARSE SAND	S-25	A-2-6	М	LOW SEVERITY FATIGUE CRACKING IN OUTSIDE WHEEL PATH OF WB OSL	471,128	2,598,214
		WB OSL 12.0	WB OSS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-22	A-6	М	LOW SEVERITY BLOCK CRACKING IN BOTH WHEEL PATHS OF WB ISL		

Notes:

 $\overline{NB} = N$ orthbound OSL = Outside Lane

SB = Southbound CL = Center Lane EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane DECEL = Deceleration Lane RTL = Right Turn Lane

RT = Right LT = Left (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median



County: CRAVEN Route: US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

Date: 7/22 - 7/30/2019 Notes By: POWELL, S. H.

		Width				Pave	ement St	ructure,	Thickne	ess	Subgrade					GPS Coo	rdinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet)	Crown "C" or Super "S"		Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth (feet)	Pavement Notes	Northing	Easting
							ı										
LOCATION 57 WB EM	FILL 4	WB ISL 12.0	WB ISS 4.0	6.0 FY LT	С						1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, GRAY, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6		LOW TO MODERATE SEVERITY BLOCK CRACKING IN BOTH WHEEL PATHS OF WB OSL	471,561	2,597,969
		WB OSL 12.0	WB OSS 4.0								4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-27	A-6	М			
LOCATION 3 WB EM BULK				5.0 FY LT							1.0' - 4.0 ROADWAY EMBANKMENT: GRAY, SILTY FINE TO COARSE SAND	BULK-1	A-2-4	M 4		447,241	2,612,830
LOCATION 30 WB OES BULK				6.0 FW RT							1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, SILTY FINE TO COARSE SAND	BULK-2	A-2-4	M 4		458,986	2,603,826
LOCATION 52 WB OES BULK				6.0 FW RT							1.0' - 4.0' ROADWAY EMBANKMENT: TAN, SILTY FINE TO COARSE SAND	BULK-3	A-2-4	M 4		469,442	2,599,013
					1												
					-												
					_												
				<u> </u>													

Notes:

Project:

TIP:

44648.1.4

R-5777C

NB = Northbound SB = Southbound

OSL = Outside Lane CL = Center Lane EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane DECEL = Deceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane

RT = Right LT = Left (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median



						<u> </u>		1 .								<u> </u>			
	ation		ation		cation		cation		cation		ation		ation		Location		ation	Loca	
Datum	N 1 WB ISS Date	Datum	N 1 WB OSL Date	Datum	N 1 WB OSS Date	Datum	N 2 WB OES Date	Datum	DN 3 WB EM Date	Datum	N 4 WB OES Date	Datum	N 5 WB OES Date	Datum	TION 6 WB EM Date	Datum	N 7 WB OES Date	LOCATION Datum	Date
SG	7/22/2019	ABC	7/22/2019	ABC	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	SG	7/22/2019
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Cut	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fil		Cut/Fill	Fill	Cut/Fill	Grade
Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-6	Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-7-6	Subgrac		Subgrade	A-6	Subgrade	A-2-4
	P Blows in CM		CP Blows in CM		OCP Blows in CM		CP Blows in CM		OCP Blows in CM		CP Blows in CM		CP Blows in CM		re DCP Blows in CM		CP Blows in CM	Cumulative DC	
1.8		0.8		0.5 8.4		2.3		1.9		2.3		2.0		1.6		1.9 42.5		0.7	
2.8		1.1		1.0 8.5		4.6		4.0		5.1		3.6		3.5		3.0		1.8	
6.1		1.3		1.4 8.6		7.1		5.7		9.5		5.2		6.1		4.8 Auger 13.8 cm		2.9	
10.3		1.6		1.8 8.66		9.4		7.4		13.2		7.0		10.3		6.8		3.9	
15.2		1.7		1.9 8.74		12.1		9.4		15.6		8.6		16.4		9.5 9.2		4.9	
20.0		2.0		2.3 8.8		15.6		11.9		18.5		10.4		21.3		12.4 15.4	 	5.8	
23.2 25.4		2.2		2.6 8.9 2.9 22.0		19.5 23.2		14.7 17.8		21.0 23.8		12.7 14.8		27.1 31.9		16.5 20.4 23.9 24.9		6.7 8.0	
27.5		2.6		3.1 22.1		26.8		20.5		26.7		16.9		36.0		32.8 29.0		9.1	
29.8		2.8		3.2 22.2		32.5		22.9		29.9		19.5		37.2		38.1 33.0		10.3	
32.2		3.0		3.4 22.4		40.2		24.0		33.8		22.3		39.8		39.1 36.8		11.7	
34.6		3.1		3.6	er Refual	46.1		25.3		39.5		25.6		43.2		39.9 40.1		13.6	
36.9		3.2		3.9	ei Veingi	50.7		27.0		43.3		29.6		46.5		40.1 43.5		16.3	
39.7		3.4	 	4.0		54.5	<u> </u>	28.9		45.2		35.0		49.4		40.12 46.5	<u> </u>	18.5	
42.4		3.5		4.2		57.9		31.3		47.1	+ +	43.5		52.2		40.14		20.6	
44.3		3.7	+ + +	4.4 4.5	+	60.9	+ + +	34.5 37.7	+	49.2 50.9	+ + +	49.7	+ +	54.7		40.16	+ + +	24.0 28.0	
46.0 47.6		3.8	+ +	4.5	+ +	64.0 66.9	+ +	37.7 40.9	+ +	53.0	+ +	54.5 57.8	+ +	57.1 60.2		40.18 40.20	+ +	31.6	
49.5		4.0	+ + +	4.9	+ +	69.6	+ +	43.8	+ +	56.4	+ +	60.8	+ + + -	62.5		40.22	+ +	34.8	
51.7		4.2	1 1	4.94		72.3		47.1	1	60.3		63.3		64.6		40.24		37.8	
54.2		4.3		4.98		74.8		50.7		64.1		66.3		66.6		40.26		40.7	
56.8		4.4		5.02		77.3		54.3		67.3		69.7		68.8		40.28		41.7	
59.2		4.5		5.06		79.5		57.8		70.2		73.0		70.7		40.3		43.0	
61.5		4.6		5.1		81.5		60.9		74.0		76.1		73.0		40.4		44.4	
63.6		4.8 4.9		5.2 5.3	 	83.5		63.4	 	78.6 82.9	<u> </u>	78.8		74.8		40.46	 	47.0	
65.5 67.7		5.0	+	5.5	+ +	85.3 87.2	+ +	66.1 68.8	+ +	86.8	+	83.0 86.8	+ +	76.4 78.1		40.54 40.6	+ +	50.3 54.1	
69.5		5.1		5.6		88.8		71.5		90.3		89.9		79.6		40.7		57.9	
71.4		5.2		5.7		90.7		74.0		93.5		93.0		81.4		40.8		61.4	
73.6		5.3		5.8		92.3		76.4		96.3		95.9		82.7		40.86		64.7	
76.0		5.4		5.9		94.1		79.0		99.7		98.7		84.3		40.94		68.0	
78.1		5.5		6.0		95.7		81.2		103.3		101.8		85.8		41.0		71.4	
80.2		5.9		6.1		97.2		83.4		106.5		104.7		87.3		41.1		74.4	
82.1 84.1		6.0	+ +	6.2 6.3	+ +	98.8 100.4	+ +	85.6 87.6	+ +		+ +			88.7 90.0		41.2 41.3	+ +	77.8 79.9	
84. I 85.7		6.2	1	6.4		100.4	+ +	89.8			+		+ +	91.0		41.4	1	82.3	
87.5		6.3		6.5		102.1		91.9						92.2		41.5		84.7	
88.9		6.4		6.6				93.9						93.5		41.6		87.2	
90.5		6.46		6.7				95.9						94.4		41.64		89.4	
92.1		6.52		6.8				97.7						95.8		41.68		91.5	
93.6		6.58	 	6.9	 		 	101.2	 					97.3		41.72	 	93.8	
95.0		6.64	1	7.0				103.0	1		1			99.3		41.76	1	96.1	
96.5 97.7		6.7 6.8	+ + +	7.1 7.2	+	 	+ +	104.7 106.4	+ +	 	+ +		+	100.7 101.8		41.8 41.84	+ + +	98.1 100.0	-
99.1		6.86	+ + +	7.26	+ +	1	+ +	108.4	+ +	1	+ +		+ + -	101.8		41.88	+ +	102.0	
100.2		6.94	† †	7.32	1 1		1	1 20	+ +	1			1	104.6		41.92	† †	103.7	
101.7		7.0	† †	7.38	 											41.96	1 1	105.4	
103.0		7.1		7.44												42.0		107.2	
104.5		27.6		7.50												42.04		108.0	
105.9		28.0	 	7.54	 		 		 							42.08	 	110.2	
107.2		28.1	1	7.58				 	1		1			+		42.12	1		
108.4		28.3	+ + +	7.62 7.66	+	 	+ +	 	+ +	 	+ +		+			42.16 42.2	+ + +		
109.9 111.2		28.4 28.7	+ +	7.66	1	1	+ +	1 1	1	1	+ +		+ +	+ +		42.2 42.22	+ +	 	
112.3		•	+ + +	7.76					+ + + - +				+ + +	 		42.24	1		
		Auger Refual		7.82			1	1 1	1	1	† †		1			42.26	1 1	 	
				7.88												42.28			
				7.9												42.3			
				8.0												42.34			
				8.1					<u> </u>							42.38			
			1	8.2	1	1	1	1	1 1		+ +		1	+ +		42.42	1		
NOTES:				8.3												42.5			

NOTES: SG - Subgrade SS - Stabilized Subgrade CTBC - Cement Treated Base Course



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Loca			ation		ation		ation		cation		ation		ation		Location		ation	Loca	
LOCATION Datum	Date	Datum	ON 8 OSS Date	Datum	9 WB OES Date	Datum	10 WB EM Date	Datum	N 11 WB OES Date	Datum	N 12 WB EM Date	Datum	I 13 WB OES Date	Datum	ION 14 WB EM Date	Datum	15 WB ISS Date	LOCATION Datum	Date
SG	7/22/2019	SG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	EGS	7/22/2019	EGS	7/22/2019	SG	7/22/2019	SG	7/22/2019
Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill
Subgrade	A-6	Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-6	Subgrade	N/M	Subgrade	A-2-6	Subgrade	_	Subgrade	A-2-4	Subgrade	A-2-4
Cumulative DC			CP Blows in CM		CP Blows in CM		CP Blows in CM		OCP Blows in CM		CP Blows in CM		CP Blows in CM		DCP Blows in CM		CP Blows in CM	Cumulative DC	
3.9		2.4		2.1		0.9 108.1		3.7		0.8		4.5		1.7		0.7 32.8		2.0 15.1	
8.0		3.6		3.5		1.9		6.7		1.6		7.2		3.8		1.3 33.5		3.0 15.2	
11.8		4.8		4.9		2.7		9.7		2.5		10.0		6.1		2.0 34.3		3.4 15.4	
18.4		5.7		6.2		3.5		13.2		3.6		12.7	 	8.7		2.5 35.1		3.9 15.5	
24.6 29.8		6.6 7.8	 	7.6 9.3		4.4 5.2		17.4 21.0		4.9 5.7		15.1 17.7		11.6 14.2		2.9 36.4 3.5 37.4		4.1 Auger	
34.6		8.8		11.8		5.8		23.8		7.1		20.2		16.2		4.0 38.7		4.9 23.1 cm	
39.0		10.1		14.3		6.3		25.6		8.9		22.8		17.6		4.3 40.3		5.3 2.1	
42.9		11.5		16.1		6.9		27.5		10.8		25.2		18.9		4.8 41.7		5.5 5.5	
46.3		13.6		17.4		7.4		29.3		13.0		30.0		20.1		5.4 44.1		5.7 9.7	
49.2		16.1		18.7		8.0		31.5		16.2		36.0	 	21.3		5.7 48.0		6.1 12.7	
52.0 54.4		18.5 21.0	+ +	20.0		8.2 8.6		34.1 36.5	+ + -	19.1 23.9	+ + -	40.2 42.4	+ + -	22.6 23.8	+ + -	6.2 49.5 6.5 50.9		6.3 14.9 6.6 17.0	
56.6		23.9	+ +	22.4	+ +	9.0	+ +	39.2	+ +	26.8	+ +	43.8	+ + -	24.9	+ +	7.0 52.1	+ +	6.9 19.2	
58.9		28.8		24.0		9.3		43.1		28.0		45.2		26.0		7.3 53.7		7.2 21.2	
61.3		44.1		25.8		9.8		47.9		29.0		46.5		27.1		7.8 56.1		7.4 22.7	
63.6		50.7		28.6		10.1		49.5		30.3		47.9		28.0		8.2 59.6		7.5 24.0	
65.7		55.3		32.4		10.6		50.7		32.9		49.1	1	29.1	 	8.6 62.8	 	7.6 25.3	
68.0 69.8		58.9 61.9	+ +	35.9 38.7		11.1 11.6	-	52.0 53.1	+ +	34.1 35.3	+ +	50.6 51.7	+ +	30.1 30.9	+ +	9.1 65.6 9.5 68.0	+ +	7.8 26.5 7.9 27.9	
71.7		64.7	+ +	41.5	+ +	12.2	+ +	54.4	+ +	36.6	+ +	53.0	+ + -	31.9	+ +	10.0 70.1	+ +	8.0 29.3	
73.5		67.2		44.2		12.7		55.7		37.8		54.2		32.8		10.5 72.0		8.2 30.6	
75.3		69.6		46.7		13.5		57.0		39.7		55.4		33.7		11.0 73.9		8.3 32.0	
76.9		71.7		49.6		13.9		58.2		41.0		56.6		34.8		11.4 75.7		8.5 33.6	
78.6		73.8 75.8		51.9 54.1		14.7		59.6 61.1		43.1 47.4		57.9		36.1 37.7		11.8 77.3		8.6 35.1	
80.0 81.6		77.7		56.3		15.0 15.9		62.8		50.8		59.3 60.6		39.5		12.5 78.8 13.0 80.2		8.8 36.5 9.0 37.8	
83.1		79.4	 	58.7		16.9		65.1		55.3	+	61.8	1	41.9		13.6 81.4		9.1 38.9	
84.5		81.0		61.0		17.9		68.7		57.7		63.3		44.5		14.0 82.8		9.3 40.3	
86.2		82.7		63.2		19.0		72.7		59.2		65.6		47.4		14.5 83.9		9.4 41.7	
		84.3		65.5		20.1		76.9		63.3		68.6		50.2		15.0 84.9		9.6 43.0	
		85.9 87.4		67.9 70.2		21.6 23.0		80.7 83.7		65.2 66.8		71.8 74.2		53.0 55.7		15.5 86.3 15.9 87.6		9.9 44.1 10.1 45.6	
		89.0		72.4		24.7		86.2		68.8		75.9		58.3		16.3 88.9		10.4 47.0	
		90.6		74.5		26.1		88.3		70.9		78.0		60.3		16.8 90.2		10.6 48.4	
		92.0		76.5		27.6		90.6		73.3		80.3		62.0		17.2 91.4		10.9 49.8	
		93.3		78.5		29.5		92.8		75.5		82.7		63.9		18.3 92.7		11.1 51.2	
		94.7		80.6 82.3		31.3		95.4	+ + + -	77.9		84.2	+ + -	65.8		18.8 94.0		11.3 52.6	
		96.1 97.5	+ +	82.3 84.1		33.0 34.6	1	97.6	+ +	80.1 83.2	+ +	84.9 85.6	+ +	67.8 69.9	+ +	19.2 95.3 19.7 96.8	+	11.5 53.9 11.7 55.7	
		99.0	† †	85.9		36.4		1	1	85.7	† †	86.2	† †	71.6	+ +	20.3 98.1	† †	11.9 57.6	
		100.3		87.7		38.2				88.7		86.8		73.8		20.9 99.4		12.0 59.1	
		101.7		89.6		40.0				92.1		87.2		76.3		21.4 100.7		12.06 60.3	
		103.0		91.5		42.1		1		95.1		87.8	1	78.2	 	22.0 102.1	 	12.14 61.9	
		104.3 105.7	+ +	93.4 95.3		45.1 50.2		1	+ + -	98.4 101.3	+ +	88.4 89.0	+ + -	80.4 82.5	+ + -	22.6 103.5 23.2 105.0	 	12.2 63.6 12.3 65.0	
		107.1		97.0		57.0				101.0		89.4		84.4	+ +	23.7 106.5		12.4	
		108.5		98.8		63.9						90.1		86.3		24.3 108.0		12.5	
		109.8		100.4		68.3						90.8		88.4		24.8 109.4		12.7	
		110.1	 	101.9		72.5						91.5		90.4		25.5		12.8	
				103.4	 	76.2 79.8	 	1	+ +	 		92.2 92.9	+	92.3		26.0 26.3	 	12.9	
		+	+ +		 	79.8 82.9	+	1	1	1	+ +	93.8	+ +	94.0 95.6	+ +	26.3	+ +	13.1 13.3	
			† †			85.8	† †	1	+ +	1	† †	94.7	† †	97.1	+ +	27.3	† †	13.5	
						88.6						95.6		98.7		27.9		13.7	
						91.5						96.5		100.3		28.4		13.9	
						93.3						97.3		101.9		28.8		14.1	
			+ + -			95.8 98.1		 	+ +	 	+ +	98.0 99.0	+ + + -	104.0 106.1	+	29.3 29.8		14.3 14.4	<u> </u>
 						100.4			1			99.U	+ + + -	100.1		30.6		14.6	
			† †			103.1		1	1	1	† †		1		+ +	31.5	† †	14.8	
						105.8										32.1		14.9	

NOTES: SG - Subgrade SS - Stabilized Subgrade CTBC - Cement Treated Base Course



Loca	tion	Loc	cation	Loc	ation	Loca	ation	Loc	ation	10	cation	1,	ocation		Location	Loc	ation	Loca	ation
LOCATION			1 16 WB OES		N 17 WB EM	LOCATION			19 WB OES		N 20 WB EM		N 21 WB OES		ION 22 WB EM		N 23 WB ISS	LOCATION	
Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date
SG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/22/2019	ESG	7/23/2019	ESG	7/23/2019	SG	7/23/2019	SG	7/23/2019
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill		Cut/Fill	Fill	Cut/Fill	Fill
Subgrade Cumulative DC	A-2-4	Subgrade	A-2-4 CP Blows in CM	Subgrade	A-2-4 CP Blows in CM	Subgrade Cumulative DC	A-2-4	Subgrade	A-2-4 CP Blows in CM	Subgrade	A-2-4 OCP Blows in CM	Subgrade	A-2-4 DCP Blows in CM	Subgrad	e A-6 e DCP Blows in CM	Subgrade	A-4 CP Blows in CM	Subgrade Cumulative DC	A-4
1.4 41.5	I Blows III CIW	2.4	CI Blows III CW	1.5 65.7	CI Blows III CIW	1.4	I Blows III CW	2.7	CI BIOWS III CW	0.9	DCI BIOWS III CW	2.5 76.0	DCI BIOWS III CIW	1.3	e DCI BIOWS III CW	1.4 111.3	CI BIOWS III CWI	0.6 15.1	I BIOWS III CIW
2.3 44.0		5.6		3.1 67.7		2.7		4.4		2.5		3.4 78.7		3.0		2.9		1.0 15.3	
3.3 46.7		8.7		4.5 69.8		3.9		6.8		3.7		7.2 81.2		5.3		4.2		1.6 15.5	
3.9 49.3 4.7 51.9		11.3		5.7 71.4 7.0 72.7		6.5 12.8		9.4 11.5		5.1 6.8		9.5 83.6 11.1 85.9		7.7 10.1		5.5 6.6		1.9 15.7 2.2 15.9	
5.5 54.8		14.6		8.3 73.8		20.6		12.8		8.3		12.6 88.1		12.0		7.9		2.4 16.1	
6.2 57.2		15.8		9.5 74.9		28.0		14.7		9.9		13.7 90.3		13.7		9.0		2.8 16.3	
6.9 59.8		17.4		10.8 76.1		30.8		16.2		11.6		14.6 92.4		15.4		10.1		3.0 16.5	
7.4 62.0 7.9 64.0		19.1 20.8		12.2 77.2 13.5 78.4		35.3 37.8		17.7 18.8		13.0 15.1		15.6 94.5 16.3 96.7		17.0 18.8		11.3 12.7		3.3 16.7 3.5 16.9	
8.2 66.1		22.1		14.6 79.6		39.6		20.1		17.9		17.2 98.9		20.7		13.9		3.8 17.2	
8.5 68.2		23.4		15.5 80.7		41.8		21.4		21.2		18.1 101.0		22.3		15.4		4.0 17.4	
8.9 70.3 9.2 72.4		25.0 26.7	1	16.7 82.0 17.5 83.5	1	44.4 47.8		22.8 24.1		23.5 25.7	1	19.1 19.8	+ + -	24.0 25.2		16.5 17.5	1 1	4.3 17.7 4.6 17.9	
9.2 72.4 9.5 73.8		28.1		18.3 84.9	+ + + -	51.3		25.4		28.0		20.6	+ + -	26.5		18.5		4.8 18.2	
9.9 75.3		29.5		19.2 86.3		55.0		26.8		31.0		21.3		27.6		19.7		5.0 18.4	
10.2 77.5		31.0 32.8		20.3 87.7 21.2 89.0		58.8		28.1		33.7 35.4		21.9		28.6 29.6		21.0	 	5.4 18.6	
10.4 79.9 10.8 81.1		32.8 35.1		21.2 89.0 21.8 90.2		62.2 65.5		29.6 31.7		35.4		22.5 23.1		31.5		22.3		5.6 18.8 5.8 19.0	
11.1 82.8		37.7		22.8 91.6		68.2		33.7		38.4		23.8		33.0		24.3		6.0 19.2	
11.5 84.6		40.3		23.6 92.7		69.7		35.2		40.5		24.4		34.8		25.7		6.2 Auger	
11.9 86.2 12.3 87.7		42.4 44.5		24.4 93.8 25.2 95.3		70.9 72.1		37.3 39.1		42.5 44.6		25.2 26.0		36.3 37.3		27.2 28.6		6.4 6.6	
12.7 89.1		46.1		26.3 96.6		73.0		40.6		47.3		26.8		38.3		30.0		6.8 2.9	
13.1 90.7		47.4		27.3 98.0		74.1		42.3		51.4		27.6		39.3		31.6		7.0 4.0	
13.5 92.2		48.5		28.6 99.2		75.2		44.8		54.4		28.3		40.4		33.7		7.2 5.4	
13.8 93.9 14.2 95.3		49.9 51.9		29.5 100.5 30.5 101.6		76.2 77.3		46.4 47.7	+	57.3 59.4	1	28.8 29.7		41.7 43.1		36.2 38.8	1	7.4 7.3 7.6 10.6	
14.6 96.7		54.3		32.0 102.8		78.3		48.6		61.1		30.3		45.1		41.2		7.9 14.0	
14.8 98.3		56.3		33.5 104.0		79.5		49.9		63.1		31.0		48.2		43.3		8.1 17.3	
15.1 99.8		58.1 59.9		34.9 36.4		80.6 81.9		51.3		65.1 66.6		31.5 32.3		51.3		45.3 47.6		8.4 20.3 8.6 22.6	
15.6 101.2 16.0 102.7		61.5		37.8		83.6		52.9 54.4		67.6		33.0		55.1 59.1		50.2		8.6 22.6 8.7 24.8	
16.3 104.2		63.2		39.0		85.4		55.9		68.7		33.7		62.0		52.1		8.9 26.8	
16.6 105.7		64.7		40.0		87.3		57.5		69.8		34.4		64.0		53.8		9.0 28.7	
17.1 107.2 17.3		66.2 67.9		40.6 41.1		89.3 93.3		58.6 59.8		71.4 73.1		35.2 35.9		66.5 70.0		55.9 58.1		9.2 30.7 9.3 32.9	
17.7		69.5		41.9		95.3		61.2		74.9		36.7		74.0		60.7		9.5 35.6	
18.2		71.3		42.6		97.4		62.8		77.1		37.5		77.5		63.7		9.7 38.7	
18.6		73.2 75.2		43.2 43.7		99.5 101.3		64.6 65.9		79.4 81.8		38.5		80.6 83.8		66.3		10.0 42.5 10.2 45.8	
19.0 19.5		75.2		44.2	+ + + -	101.3		67.2		81.8	+ +	39.4 40.5	+ +	83.8 86.5		68.9 71.5	+ +	10.2 45.8 10.4 49.0	
19.8		78.8		44.9		105.2		68.5		86.3		41.5		89.5		73.8		10.6 51.7	
20.4		80.7		45.6		107.0		69.7		88.5	 	42.6		92.4		75.9	 	10.9 54.6	
20.9 21.5		82.3 84.2	+ +	46.0 46.8	+ + -			71.0 72.0		90.9 92.6	+ + -	43.8 45.1	+ + -	95.2 98.1		78.1 80.2	+ + -	11.1 57.0 11.4 59.6	
22.0		85.8		47.2				73.2		94.9		46.3		101.0		82.3		11.6 62.1	
22.5		87.5		47.8				75.0		96.8		47.4		104.1		84.3		11.8 64.6	
23.1 23.8		88.7 90.4		48.6 49.0				76.2 79.4		98.4 99.9		48.6 49.7	+ +	106.9		86.2 88.0	1	12.0 67.0 12.2 69.4	
24.3		90.4	+ +	49.6	+ + + -	 		79.4 81.4		101.1	+ +	50.7	+ +			89.8	+ + + -	12.2 69.4 12.4 72.0	
25.1		93.6		50.3				83.7		102.5		51.8				91.7		12.6 74.2	
25.8		95.3		50.9				86.2		104.0		52.7	 			93.4		12.8 76.6	
26.8 27.8		96.8 98.3	+	51.6 52.2	+ +	1		88.2 89.7		105.0 106.2	+ +	53.7 55.0	+ + -	 		95.2 97.0	1	13.0 79.0 13.3	
28.9		99.9		53.0				91.2		107.3		56.3	1 1	 		98.9	1	13.5	
30.7		101.6		54.1				92.8				58.2				100.7		13.7	
32.5				55.4 56.5				94.5 95.9				60.8 63.7		 		102.4 104.2	1	13.9 14.2	
34.0 35.6			+ +	56.5	+ +	1		95.9 97.2			+ +	63.7 67.1	+ +			104.2	+ +	14.2	
37.4				60.5				98.5				70.5				107.8		14.7	
39.3				63.2				99.4				73.7				109.6		14.9	

NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



Dynamic Cone Penetrometer Data Sheet

Project: 44648.1.4 (R-5777C), Craven County

	ation		cation		ation		cation		cation		ation		ation			ation			ation		Loca	
LOCATION Datum	23 WB OSS Date	LOCATION Datum	N 24 WB OES Date	LOCATION Datum	N 25 WB EM Date	LOCATIOI Datum	N 26 WB OES Date	LOCATIO Datum	N 27 WB EM Date	LOCATION Datum	28 WB OES Date	LOCATION Datum	N 29 WB ISS Date	LOC		29 WB O	-	LOCATION Datum	29 WB O		LOCATION 3	30 WB OES Date
SG	7/23/2019	ESG	7/23/2019	ESG	7/23/2019	ESG	7/23/2019	ESG	7/23/2019	ESG	7/23/2019	SG	7/23/2019	S		7/23/2		SG	7/23/2		ESG	7/23/2019
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut		Fill		Cut/Fill	Fil		Cut/Fill	Fill
Subgrade	A-2-4	Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-6	Subgrade	A-4	Subg		A-2-		Subgrade	A-2-		Subgrade	A-2-4
	CP Blows in CM		CP Blows in CM		CP Blows in CM		OCP Blows in CM	Cumulative D	CP Blows in CM		CP Blows in CM		CP Blows in CM	_		P Blows i		Cumulative DC	P Blows i	n CM	Cumulative DCI	³ Blows in CM
1.0 31.3 2.2 32.0	92.7 94.6	4.2 5.8		1.7 95.0 3.8 97.2		1.2 2.9		1.6		0.5 96.9 1.5 98.2		1.4 108.4 2.5 109.5				37.7 38.3		1.8 53.5 2.6 54.0			1.3 92.1 2.6 93.3	
3.3 32.6	96.7	7.4		5.9 99.2		4.7		2.8		2.2 99.4		3.7			6.7	39.1		3.3 54.3			3.8 94.4	
4.0 33.2	99.1	9.0		7.7 101.2		6.8		4.0		3.2 100.7		5.0				39.7		3.8 54.6			1.8 95.5	
4.7 33.8 4.9 34.3	101.3	10.5 11.8		9.5 103.2 11.1 105.0		9.5 13.0		5.2		4.1 101.8 5.1 103.0		6.6 9.2				40.4 41.1		4.3 54.9 4.8 55.1			6.0 96.8 7.1 98.4	
5.4 35.0	106.0	13.1		12.5 106.7		16.9		7.9		6.1 104.2		13.3				41.7		5.3 55.5			3.1 100.0	
5.8 35.7	107.9	14.3		14.0 108.2		19.6		9.6		7.0 105.4		18.0				42.3		5.7 55.9			9.3 101.3	
6.2 36.0	110.0	15.7		15.6		22.2		11.4		8.0 106.5		21.9	+			42.9		56.2			10.3 102.6	
6.4 36.7 6.7 37.4	112.0	16.7 18.0		17.3 18.8		26.6 28.4		13.4 16.0		9.2 107.7 9.9 108.8		25.1 28.4				43.4 44.3		56.8 7.2 57.0			11.4 103.8 12.3	
7.2 38.1		19.2		20.5		30.6		20.7		10.6 110.0		31.3				45.0		7.9 57.5			13.4	
7.7 38.9		20.5		21.3		34.5		28.8		11.5		33.5				45.8		3.3 57.9			14.4	
8.1 39.6 8.6 40.5		21.6 22.6	+ + -	22.6 23.8	+ + -	39.3 43.7	+ + -	34.7 36.8		12.3 13.3		36.0 39.7			17.3 17.8	46.6 47.5		3.9 58.3 9.2 58.8			15.3 16.1	
8.9 41.4		24.0		25.2		47.0	<u> </u>	39.0		14.2		42.1	<u> </u>			48.6		9.8 59.0			17.1	
9.4 42.5		25.6		26.3		50.6		42.0		15.4		43.1				49.8		10.5 59.7			18.0	
9.7 43.7 9.8 44.9		28.2 31.5		27.4 28.6		53.8 56.9		45.2 49.2		16.7 18.3		44.0 44.8			18.7 19.0	51.2 52.7		10.9 59.9 11.6 60.5			18.9	
10.3 46.8		35.0		29.7		59.9		53.4		19.5		45.7				54.3		12.1 60.9			21.5	
10.7 48.6		39.0		30.7		63.0		55.9		21.0		46.3		4.9	19.4	56.1	1	12.5 61.6			23.4	
11.3 50.5		42.7		31.7		65.7		58.2		22.1		47.0				58.5		13.3 62.1			25.5	
11.7 52.3 12.1 53.7		45.6 49.1		32.6 33.5		68.4 71.1		60.4 63.0		23.1 24.0		47.8 48.6	+			61.2 64.2		13.9 63.0 14.6 63.7			26.8 27.8	
12.4 55.3		53.5		34.4		73.4		65.4		25.0		49.6				67.5		15.3 64.6			28.6	
12.8 57.1		57.1		35.4		75.6		68.4		26.1		50.8			20.7	70.5		16.0 65.6			29.5	
13.3 58.8 13.7 60.5		60.0 62.6		36.5 37.5		77.7 79.9		71.5 74.0		27.3 28.7		52.3 53.9			20.9 21.1	73.4 76.0		16.6 66.7 17.3 68.0			30.4	
14.1 62.4		64.9		38.5		82.0		76.7		30.2		54.9			21.3	78.4		18.1 69.3			32.0	
14.5 64.0		67.1		39.4		84.1		79.4		32.0		55.8				80.6	_	18.8 71.5			32.9	
14.9 65.3 15.3 66.3		69.1 71.3		40.3 41.2		86.1 88.3		81.9 84.6		34.0 37.2		56.4 57.1			21.7 21.9	82.2		19.6 74.6 20.2 77.4			33.8 34.5	
15.7 67.5		73.3		41.9		90.4		87.0		40.6		57.9			22.1			21.0 80.3			35.2	
16.1 68.8		75.1		42.9		92.3		89.2		43.6		58.7		5.8	22.3		2	21.7 83.0		;	36.2	
16.5 70.0		76.8		43.6		94.4		91.2		46.2		59.7			22.5			22.4 85.3			36.9	
17.0 70.9 17.4 71.8		78.7 80.3		44.6 45.4		96.4 98.5		92.9 94.7		49.1 51.6		60.6 62.1			22.7 22.9			23.1 87.2 23.6 89.0			37.8 38.8	
17.8 72.7		82.1		46.3		100.6		96.5		53.9		63.9			23.1			24.4 91.1			39.8	
18.2 73.4		83.8		47.2		102.6		98.4		56.4		66.2			23.3			25.1 93.1			40.9	
18.7 74.0 19.2 74.6		86.0 87.9		48.3 49.0		104.4 106.3		100.2 101.9		59.0 61.3		67.9 69.6			23.5 23.7			25.8 94.9 26.3 96.6			41.9 43.0	
19.7 75.0		89.8	1 1	49.9		107.8	1	103.6		63.4		71.2	1		23.9			26.9 98.3			14.2	
20.1 75.6		91.7		50.9				105.2		65.3		72.9		6.62	24.1			28.0 100.1		4	15.7	
20.6 76.2 21.0 76.7		93.5 95.2	+	51.7 52.9	+ + +		+ + -	106.7 108.3		67.1 69.0		74.6 76.2	+ +		24.3 24.5			29.5 101.9 31.1 103.6			47.1 49.5	
21.3 77.3		96.9		54.2			+ + +	108.3	+ + + -	71.2		78.0	+ +		24.5	 		32.7 105.3	 		52.8	
22.0 77.9		98.5		55.5				110.8		72.8		79.8		6.9	24.8		3	38.0 106.8		į.	56.4	
22.6 78.4		100.0		57.5						74.6		81.6			25.0			14.1 108.4			60.3	
23.0 79.0 23.5 79.6		101.8	+ +	59.7 62.1						76.3 78.1		83.4 85.5	+ +		26.4 27.8			45.5 109.8 46.4 111.0			64.1 68.3	
24.0 80.2				64.4						79.8		87.6		7.3	29.7		4	47.2			70.8	
24.7 80.7				66.8						81.3		89.6		Auger	30.2			48.0			73.3	
25.3 81.4 25.9 82.1			+ +	68.9 71.1						82.8 84.5		91.7 93.7		Auger 20.5 cm	30.7 31.2	-		18.9 19.4	-		76.1 78.5	
26.5 82.8		1		73.8			1 1			85.9		95.7	+ +		31.8			50.0			30.2	
27.0 83.5				76.8						87.2		97.6		1.0	32.4		5	50.6		8	31.7	
27.6 84.6 28.3 85.6			1	79.8 82.5			1			88.7 90.1		99.3 100.9			33.0 33.7			51.1 51.8			33.1 34.8	
28.3 85.6 29.1 86.7		 	+ +	82.5 85.2	+ + +		+ + -		+ +	91.5	 	100.9	+ + + -		34.5	-		52.0			34.8	
29.5 87.9				87.8						92.9		103.9		2.9	35.3		5	52.5		8	37.7	
30.1 89.3			 	90.3	 		 			94.2		105.4			36.1			52.9			39.3	
30.8 90.9				92.7		I I		I		95.5	1 1	107.0	1 1	4.0	36.9		5	53.1	1	9	90.6	1 1

30.8 90.9

NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



Dynamic Cone Penetrometer Data Sheet

Project: 44648.1.4 (R-5777C), Craven County

	ation		cation	_	cation		Location			cation		Locat				ation			ation			ation			ation
	1 31 WB EM		N 32 WB OES		N 33 WB OES		TION 34 WB EI	_		N 35 WB OES			36 WB EM			37 WB ISS		CATION			LOCATION			LOCATION	
Datum ESG	Date 7/23/2019	Datum ESG	7/23/2019	Datum ESG	Date 7/23/2019	Datum ESG	7/23/20		Datum ESG	Date 7/23/2019		tum SG	Date 7/23/2019		itum SG	Date 7/23/2019		itum SG		ate /2019	Datum SG		ate '2019	Datum ESG	Date 7/23/2019
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill		19	Cut/Fill	Fill		t/Fill	Grade		ıt/Fill	Fill		t/Fill	_	Fill	Cut/Fill		ill	Cut/Fill	Grade
Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrad			Subgrade			grade	A-4	_	grade	A-4		grade		-2-4	Subgrade	A-		Subgrade	A-6
Cumulative DO	CP Blows in CM	Cumulative I	OCP Blows in CN	Cumulative D	CP Blows in CM	Cumulativ	e DCP Blows in	СМ	Cumulative	DCP Blows in CM	Cumu	lative DCF	Blows in CM	Cum	ulative DO	CP Blows in CM	Cumi	ulative Do	CP Blows	s in CM	Cumulative Do	CP Blows	in CM	Cumulative DC	CP Blows in CM
2.2		1.3 54.7		1.2 82.3		2.1		2.	6		3.0			1.4	64.5		1.2	21.4	50.4		4.0 62.3			1.8	
5.3		2.4 55.7		2.0 84.5		4.5		5.	0		5.5			3.8	65.7		2.1	21.7	50.9	-	5.4 62.9			3.6	
8.4 10.7		3.3 56.9 4.3 57.9		3.1 86.4 4.3 88.5		6.6 8.5		1:	1 2.4		8.7 12.3			6.7 7.9	67.0 68.3		2.8	21.9 22.2	51.4 51.9	-	7.0 63.6 8.2 64.2			6.0 8.1	
13.2		5.4 60.6		5.4 90.2		10.6			1.0		18.3			9.1	70.2		4.2	22.4	52.5		9.7 64.7			10.0	
16.1		6.6 62.4		6.6 92.1		12.3		1:	5.1		31.2			10.3	72.3		4.8	22.7	52.9		11.2 65.5			11.7	
18.7		7.7 63.7		7.7 93.8		14.6			6.0		36.7			11.5	74.4		5.4	22.9	53.3		12.7 66.3			13.4	
21.0		8.7 65.3		8.7 95.3		16.7 18.7			5.9		39.7			12.5	77.2			23.2 23.5	53.9		14.0 67.1			15.5	
24.0 26.4	+ +	9.6 67.3 10.4 69.0		9.5 96.9 10.3 98.2		20.8			7.6		41.9 44.2			13.6 14.6	79.5 81.8		6.7 7.4	23.5	54.3 55.0		15.7 68.0 17.3 69.1			16.9 18.1	
28.2		11.3 70.6		11.3 99.5		23.0			9.2		47.9			15.7	83.9		8.0	24.2	55.6		19.0 70.2			19.0	
29.5		12.0 72.7		12.0 101.0		24.4		1	9.8		51.3			16.7	86.0		8.5	24.5	56.2		21.7 71.6			20.0	
31.6		12.8 75.0		12.8 102.3		26.5			2.7		54.1			17.9	87.8			25.2	56.9		22.5 73.6			21.2	
33.7 35.1	-	13.5 76.9 14.2 78.5	+	13.5 103.7 14.0	+	29.9 31.3			5.1 3.5	 	59.3 68.1	+ +		19.3 21.0	89.8 91.6	 	9.8 10.3	25.6 26.1	57.7 58.5	1	24.1 75.9 25.9 78.4	-		22.3 23.3	
36.2	+ +	14.2 /8.5 14.9 80.3		15.6	+ +	31.3			0.5	+ + -	78.7	+ +		23.4	93.3	+ + -		26.1	59.4		25.9 78.4 28.0 80.9			24.3	
37.6		15.7 81.8		17.4		33.4			3.4		87.2			26.4	94.8			27.0	60.5		30.4 83.0			25.2	
38.7		16.4 83.2		18.0		34.6			1.4		93.7			28.6	96.2			27.4	61.8		33.2 85.2			26.3	
39.7		17.1 84.5		18.7		35.7			3.5		98.5			29.7	97.7			28.0	63.5		35.2 87.1	ļ		27.6	
41.3 42.4		18.1 86.3 19.0 87.9		19.6 20.3		36.8 38.1			3.7 9.8		-			30.8 32.2	99.2 100.7			28.8 29.3	65.7 68.3	-	36.2 88.9 37.0 90.7			29.1 30.2	
43.6		20.0 90.0		20.8		39.6			3.9		1			33.4	100.7		13.3	30.0	71.0		37.7 92.5			32.0	
44.4		20.7 92.0		21.3		41.0			7.0					34.7	103.6		13.5	30.7	73.2		38.5 94.2			34.4	
45.1		21.6 93.1		21.9		42.2			1.0					36.0	105.3		13.8	31.3	75.3		39.2 96.0			37.5	
46.0		22.3 93.8		22.5		43.1			9.1		-			37.4	107.2			31.8	77.6		40.1 97.6			41.4	
46.9 48.0	+ +	23.2 94.3 24.1 95.3		23.1		44.2 45.3			7.2	+	1			39.0 41.1	108.9 110.7		14.2 14.4	32.5 33.1	79.9 82.2		41.0 99.4 42.0 101.0			45.7 48.0	
49.2		25.0 96.2		24.5		46.5).8					43.2	110.7		14.7	33.7	84.6		42.8 102.7			51.7	
50.7		25.8 97.1		25.2		47.6		9:	3.8					44.5			14.9	34.5	86.9		43.5 104.3			55.1	
52.6		26.7 98.0		25.8		48.8			3.6					45.2			1	35.1	89.0		44.3 105.9			57.4	
56.0 59.1		27.3 99.1 27.9 100.5		26.7 27.6		50.1 51.2			9.5					45.8 46.2			15.3 15.5	35.7 36.4	91.1 93.2		45.1 107.7 46.5 109.4			59.9 62.3	
62.0		28.7 102.3		28.5		52.4		- 1')2.1		1			46.9			15.7	37.2	95.4		46.8 111.0			64.1	
65.0		29.4 104.2		29.4		53.4								47.3			15.9	37.5	97.2		47.4			66.2	
67.7		30.1		30.7		54.7								47.7			16.1	38.0	99.0		48.1			68.5	
70.0	 	30.9		32.0		56.3	-							48.2			16.2	38.3	100.6		49.0			70.8	
72.5 74.4	+ +	31.6 32.3		33.3 34.3		57.9 59.8					1			48.9 49.3			16.4 16.6	38.9 39.4	102.2 103.9		49.6 50.2			72.9 74.9	
75.7		33.1		35.3		61.8								50.0			16.8		105.2		50.8			76.9	
77.2		34.0		36.1		63.6								50.5			17.0	40.2			51.5			78.5	
79.4		34.8		37.1		65.6					1			50.9	1		17.2				52.1			80.3	
81.5 83.4		35.6 36.3		38.2 39.6	+ + -	67.5 69.6				 	1	+ +		51.3 51.8	+	 	17.4 17.6				52.7 53.3			82.2 83.9	
85.3		37.2		40.7	+ +	72.1					1			52.4	1		17.8			1	53.7			85.8	
87.1		38.1		41.9		75.6								52.8			17.9	42.6			54.2			87.5	
89.0		39.2		43.1		79.5								53.3				43.2			54.6			88.9	
90.7 92.3		40.3 41.5		44.2 45.5		83.4 87.3				1	1			53.9 54.3	-	1	18.2 18.3			1	55.1 55.6	-		90.2 91.9	+-+-
94.0		42.7		45.5 47.2	+ +	90.6				+ +	1	+ +		54.3	+		18.4				56.0	1		93.4	
95.6		44.1		49.0		93.7					1			55.5			18.6				56.5	1		94.8	
97.2		45.4		50.3		96.5								55.9			18.8	45.0			56.9			95.9	
98.8		46.3		51.5		99.2					-			56.4			19.0				57.3	ļ		97.4	+-+-
100.3 101.6		47.1 48.0	+	52.5 54.0	+ + -	101.3 103.6				+ +	1	+ +		57.0 57.5	-	 	19.2 19.4				57.8 58.2	-		98.7 100.2	
103.1		48.9	+ +	56.6	+ +	100.0				+ + + + + + + + + + + + + + + + + + + +	1	 		58.1	1		19.4				58.7			100.2	
104.7		49.5		60.6										58.8			19.8	47.2			59.1				
		50.0		64.5										59.4				47.7			59.5				
	 	50.6 51.3		68.2 71.5							1			60.1 60.9	1	1 1		48.0 48.2			60.0 60.4	-			+-+-
	+ +	51.3		74.6	+ +					+ +	1			61.8	+	+ +		48.2			60.4	1			
		53.0		77.7							1			62.7	1		20.9				61.4	1			
		53.8		80.0										63.5			21.2				61.9				

NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



Dynamic Cone Penetrometer Data Sheet

Project: 44648.1.4 (R-5777C), Craven County

Loca				ation			ation		Loca				ation		Loca				ation			ation			tion		Loca	
LOCATION		1		40 WB OES			41 WB OES			42 WB EM			43 WB OES			44 WB ISS			44 WB OSL			44 WB OSS		LOCATION			LOCATION	
Datum ESG	7/23/20	19	Datum ESG	Date 7/23/2019		Datum ESG	Date 7/25/2019	Datu ES		Date 7/25/2019	Dat ES		Date 7/25/2019	Dat S		Date 7/25/2019		atum SG	Date 7/25/2019		tum SG	7/25/201		Datum ESG	D a 7/25/		Datum ESG	Date 7/25/2019
Cut/Fill	Fill	10	Cut/Fill	Fill	+	Cut/Fill	Fill	Cut/		Grade	Cut		Fill		/Fill	Fill		ıt/Fill	Fill		t/Fill	Fill	10	Cut/Fill	7/25/ F		Cut/Fill	Fill
Subgrade	A-2-4		Subgrade	A-6		Subgrade	A-6	Subg		A-2-4	Subg		A-2-4		grade	A-2-4		grade	A-6		grade	A-6		Subgrade	A-2	2-6	Subgrade	A-2-4
Cumulative DC	P Blows in	СМ	Cumulative DO	CP Blows in CN	/ (Cumulative DO	CP Blows in CM	Cumula	ative DC	P Blows in CM	Cumu	lative DC	CP Blows in CM	Cumu	lative DC	P Blows in CM	Cum	ulative D0	CP Blows in CM	Cum	ulative Do	CP Blows in (СМ	Cumulative DC	P Blows	in CM	Cumulative DC	P Blows in CM
2.0			3.0		2.1			1.8			3.6			2.8			3.8	63.3		1.5	81.0			2.0			2.4	
4.6 7.8			7.4 16.7		4.4 6.6			4.7 7.1			4.9 6.3			4.2 5.1			4.7 5.3	64.5 65.6	+	2.4	82.6 83.6			4.7 8.3			4.5 6.6	
11.8			23.3		9.3			9.5			7.8			6.0			5.8	66.6		3.7	85.0			12.0			8.6	i
14.7		2	27.2		12.	5		11.7			9.3			6.9			6.2	67.7		4.3	86.1			15.2			11.0	
16.6			29.1		16.			14.0			10.8			8.0			6.7	68.8		4.7	87.6			17.4			13.8	
18.0 19.2			31.2 33.7		20. 21.			16.5 18.9			12.3 14.4			9.3 10.6			7.0 7.4	69.8 70.8		5.2 5.5	89.2 90.4			19.1 20.6			16.6 19.5	$\overline{}$
20.4			37.5		23.			21.9			16.0			12.2			7.4	71.9		6.0	92.2			21.8			22.2	
21.9		4	41.6		26.			27.7			17.5			14.1			8.2	72.8		6.4	93.6			22.5			25.4	1
23.1			44.3		30.			31.6			18.6			16.2			8.6	73.8		6.9	95.1			23.6			27.7	
24.3		_	46.5		32. 35.			34.2			20.0			18.3			9.0	74.9		7.1	96.7 98.2			24.4			29.1	
25.5 26.7			48.7 51.4		35. 40.			37.2 40.6			21.6 23.7		+ +	19.6 20.9			9.4 9.7	76.0 77.2	+ +	7.7	98.2			25.2 26.1			30.3	
27.9			54.3		44.			44.2			27.3			22.0			10.0	78.3		8.2	101.1			27.3			31.6	
29.3			57.5		47.			48.0			31.6			23.2			10.4	79.5		8.7	102.6			28.5			32.2	
31.0 33.7	-		60.3 62.6		50. 53.			51.1 53.9			35.0 39.0			24.6 25.9			10.7 11.0	80.7 81.9	 	9.1	104.2 106.0	 		29.7 31.0			32.8 33.5	
33.7 37.8			64.9		53. 55.			53.9 56.4			39.0 42.2		+ +	25.9 27.2			11.0	83.0	+ +	9.4	106.0			31.0			33.5 34.2	
42.4			67.1		58.			59.1			43.4			28.7			11.7	84.1		10.3				34.3			34.7	
46.4			69.0		60.			61.6			44.5			30.7			12.0	85.3		10.8				36.0			35.5	
49.6			71.0		62.			64.1 66.4			45.3 46.5			32.8 34.7			12.4 12.8	86.2		11.2				37.6			36.0 36.9	
52.6 55.0			72.6 74.0		64. 65.			68.5			48.7			36.7			13.1	87.1 88.0		11.6 12.1				39.5 41.4			37.6	
57.4			75.8		67.			70.7			51.5			39.3			13.5	89.1		12.6				43.7			38.4	ı
59.9			77.1		69.			73.0			54.1			41.4			13.9	90.1		13.2				47.0			39.2	
62.2 64.4			78.8 80.7		70. 72.			75.1 77.4			57.1 60.4			43.4 45.8			14.3 14.9	90.9 91.9		13.8 14.3				51.4 53.9			40.2 41.2	
66.6			82.6		74.			77. 4 79.7			63.3			48.0			15.4	92.9		15.0				55.7			42.6	
68.3		8	84.3		75.			82.0			65.7			50.8			15.7	93.8		15.6				57.5			44.3	
70.0			86.0		77.			84.4			69.1			53.2			16.3	94.8		16.2				60.1			46.5	
71.8 73.5			87.6 89.1		78. 80.			86.9 89.1			72.0 74.4			55.4 58.0			16.8 17.5	95.8 97.1		16.9 17.9				62.5 64.8			49.1 52.0	
75.1			90.7		81.			91.3			77.8			60.3			18.1	98.1		18.9				67.1			54.7	
76.8			92.2		82.			93.5			81.4			62.0			18.9	99.4		20.0				69.6			57.4	
78.3			93.9		84.			95.6			84.2			63.6			19.8	100.6		21.4				71.9			60.1	
79.8 81.4			95.6 97.2		85. 86.			97.8 99.5			87.0 89.7			65.3 66.9			20.7 21.5	101.7		23.9 25.9				74.7 77.3			62.9 65.5	
82.9		ę	98.8		88.	0		101.5			92.4			68.7			22.5			28.4				79.9			67.5	
84.3		ŕ	100.4		89.	2		103.4			95.0			70.5			23.4			32.2				32.1			69.8	
85.6			101.9		90. 91.			105.5			97.7 99.7			71.9 73.7			24.5 25.6	1	 	35.3 38.1				84.2 86.4			71.9 73.8	
87.1 88.4					91. 92.						99. <i>7</i> 101.8			73.7 75.6			26.7		 	38.1 40.7				86.4 88.6			73.8	
89.7					94.	0								77.4			28.0			43.0				90.6			77.5	
91.0					95.									79.1			29.5			45.4				92.8			79.4	
92.3 93.7					96. 97.						1		 	81.0 82.5			31.5 34.6	1		47.8 50.1				94.8 96.5			80.9 82.7	
95.0	+				98.	3					1			84.2			37.5	1		52.2				98.1			84.2	
96.3					99.	4								85.8			40.1			54.4				100.1			85.8	
97.7					100).7					1			87.4			42.5	1		56.4				101.8			87.1	
99.2 100.4		+			+			1					+ +	89.0 90.5			44.3 46.4	1		57.7 60.6				103.1 104.5			88.5 90.0	
102.8		t			\top									92.0			48.4	1		62.5							91.5	
														93.4			50.3			64.3							92.9	
		}			+						+			94.8 96.2			52.1		 	66.1							94.3 95.8	
					+						1			96.2 97.6			54.5 55.1	+		67.9 69.6							95.8 96.9	
					士									99.0			56.4			71.3							98.4	
					T									100.6			58.1			73.2							99.8	
	-				+			1			1			102.1			59.5	1		75.4 77.4							101.0 102.2	
				+ +	-1		+ +	1			1		+ +	103.8			60.8 62.0	+	+ +	77.4 79.2	+		-				102.2	

NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



		·!	1	1 4:		ı	1		<u> </u>			1		-11	1					1		41		1		<u> </u>			
1.00	Loca	tion 47 WB EM		Locati	ion 8 WB OI	FS	LOCATION	ation I 49 WR FM	. +		ocation N 50 WB OES	10		ation I 51 WB EM	Location		ISS	LOCATION :		10	Loca	52 WB OSS	1.00	Loca	tion 53 WB OES	+ .	Loca OCATION.	ation I 54 WR F	=м
Dat		Date	Datum		Date	_	Datum	Date		Datum	Date		tum	Date	Datum		ite	Datum	Date		atum	Date		tum	Date		atum	Da	
ES		7/25/2019	ESG		7/25/2	2019	ESG	7/25/20	19	ESG	7/25/2019		SG	7/25/2019	SG	7/25/	2019	SG	7/25/2019		SG	7/25/2019		SG	7/25/2019		ESG	7/25/2	
Cut		Fill	Cut/Fil		Fill		Cut/Fill	Fill		Cut/Fill	Fill	_	t/Fill	Fill	Cut/Fill	F		Cut/Fill	Fill	_	ıt/Fill	Fill		/Fill	Fill	_	ut/Fill	Fi	
Subg		A-2-4 P Blows in CM	Subgrad Cumulativ		A-2-		Subgrade Cumulative DC	A-2-6		Subgrade	A-2-4 DCP Blows in CM		grade	A-2-6 CP Blows in CM	Subgrade Cumulative DC		2-6 in CM	Subgrade Cumulative DC	A-2-4 P Blows in Cl		ograde	A-2-4 P Blows in CM		grade Jative DC	A-6 P Blows in Cl		bgrade nulative DC	A-2	
3.0	anvo Do		5.4	10 00.	Diowo ii		2.4 70.8	, Biomo iii		2.0	I I	2.2	liativo De		2.3 62.2	, Biomo			49.0	2.0	69.5	1 210110 111 0111	2.6		. Biomo iii oi	2.1	92.2	l Biome i	
5.0			7.7				4.8 71.6			3.0		5.2			3.7 63.6				50.1	3.7	70.2		5.0			4.7	93.6		
6.0 7.2			9.7 11.2				7.0 72.4 8.7 73.2			i.2		9.3 14.4			5.3 65.3 6.8 67.2				51.3 52.9	5.1 6.2	71.0 72.1		7.1 9.1			8.4 13.0	94.9 96.1		
8.4			12.8				10.0 74.0			5.8		19.5			8.2 69.2				54.7	7.6	73.0		11.0			18.4	97.5		
9.7			14.4				11.0 74.8		8	3.2		24.2			9.5 71.1				56.7	8.8	73.8		12.7			20.9	99.1		
11.2 12.5			16.1 18.0				12.0 75.6 13.0 76.4			1.2		26.4 28.8			10.7 72.9 12.3 74.7				58.7 60.5	9.9 10.9	74.8 76.0		14.3 16.1			22.8 25.1	100.4 101.8		
14.8			19.8				14.0 77.4			2.7		30.8			14.0 76.5				61.8	12.2	77.2		17.7			27.9	101.8		
17.5			21.3				15.4 78.3		1	3.8		33.2			15.3 78.1				63.1	13.2	78.5		19.7			29.7	104.9		
20.8			22.8				17.0 79.0			5.1		34.6			16.2 79.8				64.5	14.5	80.3		21.7			31.7			
23.9 27.1			24.3 25.7				18.9 79.9 20.4 80.7			7.7		36.3 37.7			17.4 81.3 18.8 83.3				65.7 67.2	15.8 17.2	82.4 84.7		23.1 24.7			33.5 34.6			
30.8			27.2				22.1 81.6		1	9.1		39.6			20.0 85.2			3.0 11.5	68.8	18.5	87.0		26.4			35.3			
34.1			28.7				23.6 82.5			0.2		40.8			21.4 87.0				70.5	19.5	89.4		27.8			36.2			
36.1 37.8			30.2 31.5				24.7 83.2 25.7 84.3			21.4		42.1 43.4			22.7 89.2 23.9 91.2				72.6 74.4	20.5 21.6	91.9 94.8		29.1 30.5			37.2 38.1			
39.3			32.8				26.7 85.1			3.9		44.6			24.8 93.3				76.1	22.6	97.7		31.8			38.9			
40.3			34.0				27.4 86.0			5.2		45.9			25.8 95.5				77.8	23.5	100.5		33.2			39.7			
41.9 43.2			35.3 36.3				28.3 86.7 29.0 87.5			6.5 7.9		47.1 48.6			26.7 97.7 27.6 100.1				79.7 81.7	24.6 25.4	103.3 106.0		34.6 36.0			40.9 41.9			
44.5			37.5				29.8 88.1			9.2		49.7			28.3 102.1				83.7	26.4	108.7		37.3			43.2			
45.8			38.7				30.5 88.9			0.6		50.9			29.1 104.2			4.0 17.7		27.2	110.9		38.3			44.7			
46.8 48.4			39.9 41.2				31.3 89.6 32.4 90.3			32.1 34.2		52.2 53.4			29.7 106.5 30.3 108.7			4.06 18.8 4.14 19.9		28.2 29.1			39.2 40.6			46.0 46.9	-		
49.8			42.9				33.3 91.0			6.3		54.9			30.7 111.1			4.2 21.0		29.9			42.3			48.0			
51.1			44.4				34.2 91.8			8.5		56.4			31.2			4.3 22.3		30.6			44.6			49.3			
52.5 54.0			47.8 53.2				35.4 92.6 36.3 93.5			3.3		57.9 59.3			31.8 32.5			4.4 23.6 4.5 24.9		31.6 32.3			47.0 49.1			50.3 51.2			
55.8			57.2				37.5 94.4			5.9		60.9			33.0			4.7 25.9		33.2			51.0			52.2			
57.9			61.7				38.6 95.3			8.2		62.6			33.6			4.8 26.6		34.3			53.6			53.1			
60.7 62.9			65.5 66.8				39.7 96.4 40.7 97.6			9.9		63.9 65.0			34.2 34.9			4.9 27.2 5.0 28.0		35.6 37.0			57.0 60.2			53.9 54.9			
65.8			68.1				41.6 98.8			3.2		66.1			35.5			5.06 28.5		38.0			64.0			55.7			
68.5			70.8				42.2 100.4			5.0		67.4			35.9			5.14 29.3		39.2			66.8			56.5			
70.8 73.2			72.5 74.6				43.0 102.0 44.2 103.8			7.0 9.1		68.6 69.7			36.5 37.3			5.2 30.1 5.3 30.8		40.3 41.4			68.9 71.2			57.1 58.1			
75.4			76.9				45.2 105.2			1.0		70.9			37.9			5.36 31.6		42.5			71.2			59.0			
77.7			79.5				45.8		6	2.7		71.9			38.5			5.42 32.3		43.3			74.5			59.7			
79.9 81.8			82.1 84.6				46.8 47.5			6.5		73.0 74.1			39.4 39.6			5.48 32.9 5.54 33.6		44.1			76.4 78.5			60.6			
83.7			86.7				48.4			8.6		74.1 75.1			40.3			5.54 33.6 5.6 34.2		45.0 45.7	+		78.5 81.1			61.3 62.2			
85.7			89.1				49.5		7	1.1		75.8			40.9			5.7 34.8		46.5			84.1			62.8			
87.4 89.3			91.6				50.4			3.2 5.7		76.8 77.6			41.4			5.9 35.5 6.0 36.2		47.3 48.1	+		87.9 91.7			63.6 64.5			
91.0			94.1 96.6				51.4 52.4			8.5		77.6 78.5			41.9 42.6			6.0 36.2 6.2 37.1		49.0	+		91.7 95.1			65.4			
92.9			99.3				53.5		8	3.0		79.4			43.3			6.3 37.7		50.0			99.3			66.5			
94.4			102.2	T			54.7		8	8.8		80.3			44.0			6.4 38.4		51.2	+		102.9			67.6			
96.3 98.1							55.9 57.3		-+			81.5 82.6			44.9 45.6			6.46 39.2 6.54 39.8		52.6 54.5	+ -		107.7			69.0 70.4			
99.6							58.8					83.6			46.7			6.6 40.4		56.2						71.9			
							60.6		$ \!$			84.6			47.9			6.7 41.0		58.2						73.4			
			 				62.5 63.7		\dashv			86.0 87.5			49.2 50.6			6.8 41.6 6.9 42.2		58.8 61.5	+ -					75.0 76.8			
							64.3					89.3			52.2			7.0 42.8		62.8						79.2			
							65.0					91.7			53.8			7.1 43.5		63.8						82.1			
							65.7 66.3					95.0 101.8	-		55.3 56.6			7.2 44.2 . 44.9		64.7 65.5	+					83.9 85.5	-		
							67.2					101.0			57.4			Auger 45.6 45.6		66.3						87.2			
							68.0								58.3			46.4		67.0						88.8			
							69.0 69.9		-+						60.2 60.9			0.7 47.2 1.1 48.0		67.9 68.6	+					90.0 91.3			
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Loca	ation	Loc	cation	1	_ocation		ocation			Loc	ation		Loca	tion		Loca	ation		Loca	ation		Loc	ation		Loca	ation
LOCATION Datum	55 WB OES Date	LOCATION Datum	N 56 WB OES Date		ION 57 WB EM Date	Datum		Date	Do	tum	Date	D	atum	Date	Dot	tum	Date	Dot		l D	ate	Datum	l Da	ate	Dotum	Date
ESG	7/25/2019	ESG	7/25/2019	Datum ESG	7/25/2019	Datum		Date	Da	ltum	Date	De	atum	Date	Dat	Lum	Date	Dat	um	Da	ate	Datum	De	ite	Datum	Date
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill				t/Fill			ıt/Fill			:/Fill		Cut				Cut/Fill			Cut/Fill	
Subgrade	A-6	Subgrade	A-2-6	Subgrad		Subgrade		! 014		grade	OD Diama in OM		grade	D DI : OM		grade	DD Diama in OM	Subg		D Di	OM	Subgrade	D Di	i 014	Subgrade	D Diama in OM
3.3	P Blows in CM	1.8	OCP Blows in CM	1.8	e DCP Blows in CM	Cumulative	DCP BIC	ws in Civi	Cumi	liative De	CP Blows in CM	Cum	ulative DC	P Blows in CM	Cumu	liative DC	CP Blows in CM	Cumu	lative DC	P Blows	IN CIVI	Cumulative DO	P Blows	In CIVI	Cumulative DC	P Blows in CM
6.2		2.7		3.3					1			1						1								
8.5		4.2		4.8																						
11.3 14.2		6.6 7.8	+ +	6.4 8.5								+		<u> </u>	-											
16.6		8.4		11.0					1			1			1			1								
19.1		9.0		13.4																						
22.0 24.6		10.1 11.2		17.0 22.4					-			-														
28.3		12.2		28.2					1			+			-			1								
32.0		13.5		31.9																						
35.0		15.3	 	34.1	\perp				<u> </u>	<u> </u>																
38.0 41.4		18.5 18.8	+ +	36.2 38.0	+				1	+			+ -				 									
43.8		21.6		39.7																						
46.0		23.0		41.0																						$\perp \overline{\perp}$
48.3 50.1	 	25.7 28.8	+	42.0 43.0					-	1			+		 	 		 		 						
51.9		30.6	+ +	44.4	+ +																					
54.2		32.4		47.2																						
56.2		34.4 36.8		51.9 55.7					-			-														
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64.5		41.5		61.7																						
67.3		43.1		65.4											ļ											
69.1 70.5		44.3 45.3		67.9 70.4								+														
71.4		46.5		72.8																						
72.4		47.5		75.0																						
73.2 74.4		49.5 51.5	1	77.6 79.5	+ +				1			+		+	1		 									1
75.1		53.5		81.8																						
76.0		55.3		84.0																						
77.2 78.1		56.8 58.1	+ +	86.1 88.6					1			+														t
79.1		59.6		90.8					1			1														
80.3		61.0		93.3																						
81.6 83.1		62.7 64.3	+ + -	95.6 97.7						1		-	+		-											
84.8		66.1	+ +	99.9	+ + -																					
86.9		67.9		102.4																						
89.1 91.4		69.8 71.7	+ + -							1		-	+		-											
93.3		73.1	+ + -	+ +					1				+ -													
95.3		75.2																								
97.3 98.9		76.7 78.9								-			+		<u> </u>											
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NOTES:																										

NOTES: SG - Subgrade SS - Stabilized Subgrade CTBC - Cement Treated Base Course

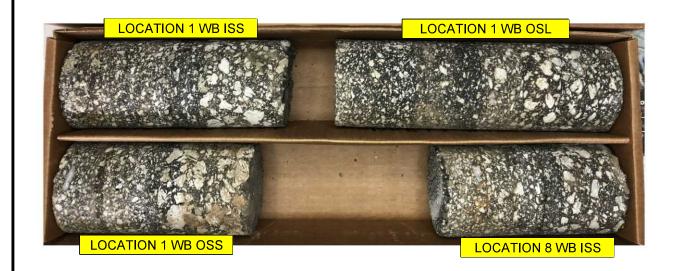


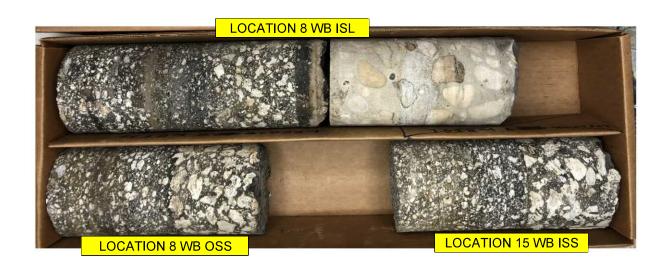
PAVEMENT CORE PHOTOGRAPHS

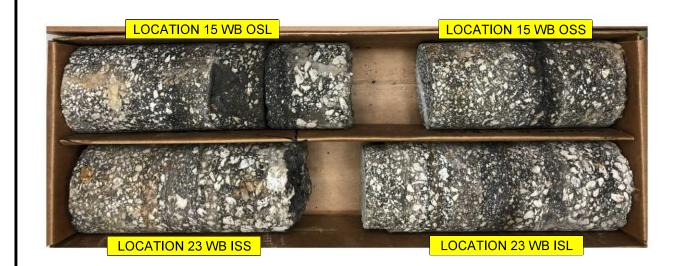
US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

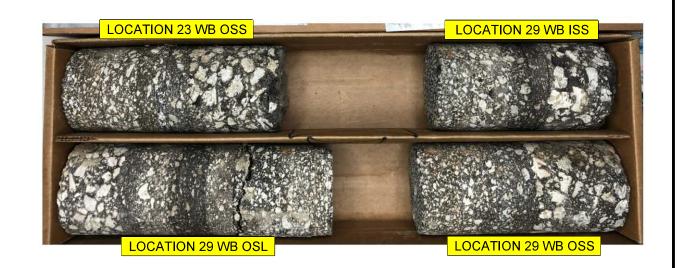
R-5777C

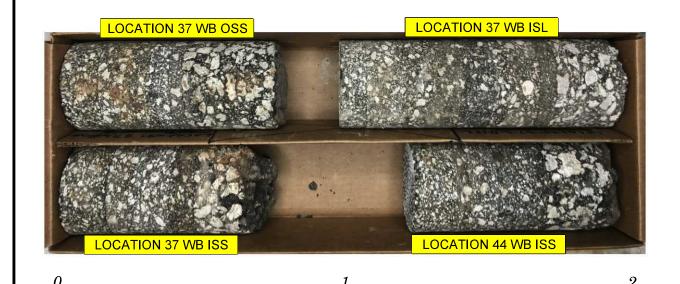
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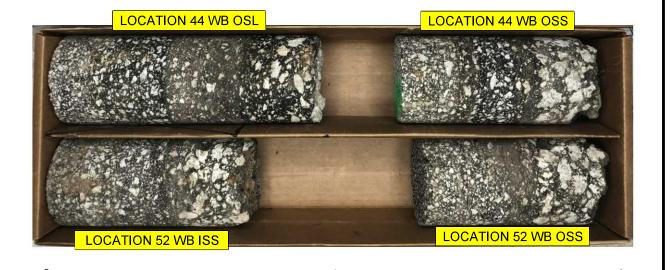








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PAVEMENT CORE PHOTOGRAPHS US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - WESTBOUND

R-5777C 50





Project:	44648.1.4			County:	CRAVEN	
TIP:	R-5777C	Route:	US	70 - FROM T		STBOUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	ement S	tructure,	Thickness	Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 1 EB OES	GRADE LT	EB RTL 12.0	EB OSS 4.0	6.0 S FW LT (LT)					1.0' - 4.0' UNDIVIDED COASTAL PLAIN: : BROWN, BLACK, FINE SANDY CLAY	REF S-3	A-6	М	6	LOW SEVERITY EDGE CRACKING IN EB OSS MODERATE LONGITUDINAL CRACKING IN EB LTL	446,408	2,613,454
	FILL RT 2	EB OSL 12.0	EB ISS 5.0						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, FINE SANDY CLAY	REF S-1	A-6	М		LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
		EB ISL 12.0 EB LTL												MODERATE LONGITUDINAL CRACKING IN CENTER OF EB RTL		
		12.0												LOW TO MODERATE SEVERITY FATIGUE CRACKING IN EB ISL		
LOCATION 2 EB EM	GRADE	EB OSL 12.0	EB OSS 4.0	6.0 S FY RT (LT)					1.0' - 4.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, FINE SANDY CLAY	REF S-39	A-6	М		LOW TO MODERATE SEVERITY EDGE CRACKING IN EB ISS	446,814	2,613,187
		EB ISL 12.0	EB ISS 4.0						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: TAN, YELLOW, GRAY, BROWN, FINE SANDY CLAY	REF S-41	A-6	М		LOW SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL		
LOCATION 3 EB OES	GRADE	EB OSL 12.0	EB OSS 4.0	6.0 S FW LT (LT)					1.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, TAN, FINE SANDY CLAY	REF S-43	A-6	М		LOW SEVERITY FATIUGE CRACKING IN EB OSS LOW TO MODERATE SEVERITY TRANSVERSE	447,172	2,612,793
		EB ISL 12.0	EB ISS 4.0											CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
LOCATION 4 EB EM	GRADE LT	EB OSL 12.0	EB OSS 4.0	6.0 S FY RT (LT)					1.0' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, BROWN, SILTY FINE TO COARSE SAND	REF S-12	A-2-4	М	6	NO DISTRESS IN EB LANES	447,512	2,612,458
	FILL RT 3	EB ISL 12.0	EB ISS 4.0						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-4	A-6	М				
LOCATION 5 EB OSS	GRADE LT	EB OSL 12.0	EB OSS 4.0	1.0 S FW LT (LT)	ASPHALT (7.5)	7.5			0.6' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE TO COARSE SANDY CLAY	REF S-43	A-6	М	6	MODERATE SEVERITY FATUIGE CRACKING IN EB ISS	447,817	2,611,977
LOCATION 5 EB OSL	FILL RT	EB ISL 12.0	EB ISS 4.0	7.0 FW RT	ASPHALT (9.5)	9.5			0.8' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY FINE TO COARSE SAND	S-44	A-2-4	W		LOW SEVERITY FATUIGE CRACKING IN EB ISL	447,825	2,611,981
									3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, BROWN , FINE SANDY CLAY	REF S-40	A-6	М				
LOCATION 5 EB ISS				1.5 FY RT	ASPHALT (10.5)	10.5			0.9' - 3.5' ROADWAY EMBANKMENT: TAN, YELLOW, CLAYEY FINE TO COARSE SAND	REF S-42	A-2-6	М	6		447,842	2,611,991
									3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-43	A-6	М				

Notes:

NB = Northbound OSL = Outside Lane

SB = Southbound CL = Center Lane EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

COL = Collector Lane ACCEL = Acceleration Lane

DECEL = Deceleration Lane

LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane

RT = Right LT = Left

(I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane

OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median



Project:	44648.1.4		County:	CRAVEN	
TIP:	R-5777C	Route:	US 70 - FROM TH	URMAN ROAD TO HAVELOCK BYPASS	- FASTBOUN

Date: 7/22 - 7/30/2019 Notes By: POWELL, S. H.

		Width			Pav	ement S	Structure,	Thickness		Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 6	T = 1	EB OSL	I ED OCI	5.5 C	ı	ı	1 1		1 1		1	1 1			LOW SEVERITY FATIGUE CRACKING IN OUTSIDE WHEEL		
EB OES	FILL 2.5	12.0	EB OSL 3.5	5.5 C FW LT						1.0' - 2.5' ROADWAY EMBANKMENT: BROWN, TAN, CLAYEY FINE TO COARSE SAND	REF S-42	A-2-6	М		PATH OF EB ISL	448,050	2,611,573
		EB ISL 12.0	EB ISS 4.0							2.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, TAN, FINE SANDY CLAY	REF S-43	A-6	М				
LOCATION 7 EB EM	FILL 3.5	EB OSL 12.0	EB OSS 4.0	6.0 C FY RT						1.0' - 3.5' ROADWAY EMBANKMENT: TAN, BROWN, CLAYEY FINE TO COARSE SAND	REF S-42	A-2-6	М		LOW SEVERITY TRANSVERSE CRACKING IN EB OSS AND EB OSL	448,319	2,611,160
		EB ISL 12.0	EB ISS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, FINE SANDY CLAY	REF S-43	A-6	М				
LOCATION 8 EB OES	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, BLACK, CLAYEY FINE TO COARSE SAND	REF S-42	A-2-6	М		LOW SEVERITY FATUIGE CRACKING IN BOTH WHEEL PATHS OF EB OSL AND EB ISL	448,690	2,610,402
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-40	A-6	М				
LOCATION 9 EB EM	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 C FYRT						1.0' - 4.0' ROADWAY EMBANKMENT: TAN, GRAY, BROWN, CLAYEY FINE TO COARSE SAND	REF S-42	A-2-6	М		LOW TO MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSS AND EB LTL	448,995	2,609,951
		EB ISL 12.0	EB ISS 4.0							4.0' - 6.0'- UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-38	A-6	М				
		EB LTL 11.5								THE GARD FOLK							
LOCATION 10 EB OES	FILL 3.5	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT						1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, BLACK, FINE TO COARSE SANDY CLAY	REF S-39	A-6	М	6	NO DISTRESS IN EB LANES	449,225	2,609,423
		EB ISL 12.0	EB ISS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, FINE SANDY CLAY	S-43	A-6	М				
					<u> </u>		<u> </u>				l						

Notes: NB = Northbound OSL = Outside Lane SB = Southbound CL = Center Lane

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COL = Collector Lane ACCEL = Acceleration Lane DECEL = Deceleration Lane LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane

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OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder

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Project:	44648.1.4				County:	CRAVEN	
TIP:	R-5777C		Route:	US	70 - FROM T	THURMAN ROAD TO HAVELOCK BYPASS - EAS	STBOUN

	Date:	7/22 - 7/30/2019
ND	Notes By:	POWELL, S. H.

		Width			Pa	vement S	tructure, T	Thickness	Subgrade						GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION		ED 001	T ED 000		AODUALT	1	1			T	T	1		LOW OF VEDITY LONGITUDINAL OR A OVING IN ED OOL	1	T
LOCATION 11 EB OSS	FILL 2	EB OSL 12.0	EB OSS 4.0	2.0 S FW LT (RT)	ASPHALT (11.0)	11.0			0.9' - 2.0' ROADWAY EMBANKMENT: TAN, YELLOW, CLAYEY FINE TO COARSE SAND	REF S-42	A-2-6	М	6	LOW SEVERITY LONGITUDINAL CRACKING IN EB OSL	449,660	2,608,680
		EB ISL 12.0	EB ISS 4.0						2.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK FINE SANDY CLAY	REF S-40	A-6	W				
LOCATION 11 EB ISL				2.0 FY LT	ASPHALT (10.0)	10.0			0.8' - 2.5' ROADWAY EMBANKMENT: TAN, YELLOW, GRAY, WHITE, SILTY FINE TO COARSE SAND	S-37	A-2-4	М	6		449,678	2,608,692
									2.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-34	A-6	М				
LOCATION 11 EB ISS				2.0 FY RT	ASPHALT (8.5)	8.5			0.7' - 3.0' ROADWAY EMBANKMENT: YELLOW, TAN, GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-30	A-2-4	М	6		449,684	2,608,697
									3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY SILT	S-36	A-4	W				
LOCATION 12 EB OES	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 S FW LT (RT)					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, TAN, FINE TO COARSE SANDY CLAY	REF S-39	A-6	М		MODERATE SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT OF EB OSL AND EB ISL, POTHOLES FORMING 1" TO 2"	449,990	2,608,252
		EB ISL 11.5	EB ISS 4.5						4.0' - 6.0' UNDIIDED COASTAL PLAIN: BROWN, FINE SANDY CLAY	REF S-41	A-6	М		LOW TO MODERATE LONGITUDINAL CRACKING IN CENTER OF EB OSL AND OUTSIDE WHEEL PATH OF		
														EB ISL		
														LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATH OF EB OSL AND EB ISL		
														LOW SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL		
LOCATION 13 EB EM	FILL 4.5	EB OSL 12.0	EB OSS 3.5	6.0 S FY RT (RT)					1.0' - 4.5' ROADWAY EMBANKMENT: BROWN, FINE TO COARSE SANDY SILT	REF S-35	A-4	М	6	LOW SEVERITY LONGITUDINAL CRACKING BETWEEN EB OSL AND EB ISL	450,363	2,607,916
		EB ISL 12.5	EB OSS 4.0						4.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK SILTY FINE TO COARSE SAND	REF S-31	A-2-4	М				
LOCATION 14 EB OES	FILL 3.5	EB OSL 12.0	EB OSS 4.0	6.0 S FW LT (RT)					1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, BLACK, FINE TO COARSE SANDY CLAY	REF S-39	A-6	М		HIGH SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT OF EB OSL AND EB ISL, POTHOLES FORMING 2"	450,695	2,607,521
		EB ISL 12.0	EB ISS 4.5						3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF S-41	A-6	W		LOW SEVERITY TRANSVERSE CRACKING IN EB OSL		
														LOW TO MODERATE SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF EB OSL AND EB ISL		

Notes:

WB = Westbound

 \overline{NB} = Northbound OSL = Outside Lane

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			_			
Project:	44648.1.4			County:	CRAVEN	
TIP:	R-5777C	Route:	US	3 70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS - EA	STROUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pa	vement Str	ucture,	Thickne	SS	Subgrade					GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
LOCATION 15 EB OES	FILL 3.5	EB RTL 12.5	EB OSS 3.5	6.0 S FW LT (R1						1.0' - 3.5' ROADWAY EMBANKMENT: TAN , BROWN, GRAY, CLAYEY FINE TO COARSE SAND	S-42	A-2-6	M 6	MODERATE SEVERITY TRANSVERSE CRACKING IN EB RTL AND EB OSL	451,272	2,607,048
		EB OSL 12.5	EB ISS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY FINE TO COARSE SAND	REF S-31	A-2-4	w	MODERATE SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT OF EB OSL AND EB ISL		
		EB ISL 12.0												ROUGHING IN CENTER OF EB ISL		
LOCATION 16 EB EM	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 S FY RT (RT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, FINE TO COARSE SANDY SILT	S-35	A-4	M 6	LOW SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT OF EB OSL AND EB ISL	451,715	2,606,862
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-31	A-2-4	М	LOW SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL		
LOCATION 17 EB OES	FILL LT 4	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT						1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, TAN, FINE TO COARSE SANDY CLAY	REF S-39	A-6	M 6	LOW SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL	452,177	2,606,601
	FILL RT 2	EB ISL 12.5	EB ISS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-40	A-6	W			
LOCATION 18 EB EM	GRADE	EB OSL 12.0	EB OSS 4.0	6.0 C FY RT						1.0' - 3.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, SILTY FINE TO COARSE SAND	REF B-4	A-2-4	M 6	LOW SEVERITY TRANSVERSE CRACKING EB OSL AND EB ISL	452,634	2,606,422
		EB ISL 12.0	EB ISS 4.5							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY SILT	REF S-33	A-4	W			
LOCATION 19 EB OSS	GRADE	EB OSL 12.0	EB OSS 4.0	2.0 C FW LT	ASPHALT (8.0)	8.0				0.7' - 3.0' UNDIVIDED COASTAL PLAIN: TAN, GRAY, YELLOW, FINE TO COARSE SANDY CLAY	REF S-7	A-6	M 6	MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL	453,047	2,606,186
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-41	A-6	М	MODERATE SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT OF EB OSL AND EB ISL		
LOCATION 19 EB OSL				7.5 FW RT	ASPHALT (18.0)	18.0	+6.0			BOTTOM OF CONCRETE CORE NOT RECOVERED CONCRETE GREATER THAN 6"	-	-	-		453,052	2,606,197
										DCP/AUGER NOT CONDUCTED						
LOCATION 19 EB ISS				2.0 FY RT	ASPHALT (9.0)	9.0				0.8' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-41	A-6	M 6		453,061	2,606,215

Notes:

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Project:	44648.1.4			County:	CRAVEN	
TIP:	R-5777C	Route:	US	70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS - EA	STBOUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	ement S	tructure,	Thickness		Subgrade						GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION OF	T Eu l	ED 001	T ED 000		T	ı	T		1		ı			T	MODERATE OF VERITY LONGITURINAL OR A OVING	1	
LOCATION 20 EB OES	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT						1.0' - 3.0' ROADWAY EMBANKMENT: TAN, BROWN, FINE TO COARSE SANDY CLAY	REF S-39	A-6	М	6	MODERATE SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT OF EB OSL AND EB ISL	453,506	2,605,970
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: TAN, YELLOW, GRAY, FINE SANDY CLAY	S-41	A-6	W		LOW SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL		
LOCATION 21	FILL	EB OSL	EB OSS	5.0 C											NO DISTRESS IN EB LANES		
EB EM	3	12.0	4.0	FY RT						1.0' - 3.0' ROADWAY EMBANKMENT: GRAY, BLACK, SILTY FINE TO COARSE SAND	REF B-4	A-2-4	М	6		453,994	2,605,776
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, SILTY FINE TO COARSE SAND	REF S-31	A-2-4	М				
LOCATION 22 EB OES	FILL 3.5	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT						1.0' - 3.5' ROADWAY EMBANKMENT: BROWN, TAN, BLACK, FINE SANDY CLAY	REF S-39	A-6	М	6	MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL	454,419	2,605,532
		EB ISL 12.0	EB ISS 3.5							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	S-40	A-6	w		LOW SEVERITY FATIGUE CRACKING AT CONSTRUCTION JOINT OF EB OSL AND EB ISL		
LOCATION 23 EB OES	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, TAN, FINE TO COARSE SANDY CLAY	REF S-39	A-6	М	6	MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL	455,011	2,605,251
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, TAN, FINE SANDY CLAY	REF S-38	A-6	М		MODERATE SEVERITY FATIGUE CRACKING ALONG CONSTRUCTION JOINT OF EB OSL AND EB ISL		
LOCATION 24 EB EM	FILL LT 2	EB OSL 12.0	EB OSS 4.0	6.0 C FY RT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, SITLY FINE TO COARSE SAND	REF B-4	A-2-4	М	6	RIPPLING IN INSIDE WHEEL PATH OF EB ISL	455,498	2,605,059
	FILL RT	EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED OCASTAL PLAIN: BROWN, TAN, GRAY, FINE SANDY CLAY	S-34	A-6	w				
LOCATION 25 EB OES	GRADE	EB OSL 12.0	EB OSS 4.0	8.0 C FW LT						1.0' - 3.5' UNDIVIDED COASTAL PLAIN: BROWN, BLACK, GRAY, FINE SANDY CLAY	S-39	A-6	М	6	LOW SEVERITY FATIGUE CRACKING AT CONSTRUCTION JOINT OF EB OSL AND EB ISL	455,899	2,604,824
		EB ISL 12.0	EB ISS 4.0							3.5' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, BROWN, FINE SANDY CLAY	REF S-38	A-6	М		LOW SEVERITY FATIGUE CRACKING ALONG THE OUTSIDE WHEEL PATH OF EB ISL		
	1																
												1					

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		_					-
Project:	44648.1.4				County:	CRAVEN	
TIP:	R-5777C		Route:	US	70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS - EAS	STBOUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	ement S	tructure,	Thickness		Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 26	FILL	EB OSL	EB OSS	2.0 C	ASPHALT	T	T	T	I		T	T	T	T	LOW SEVERITY FATIGUE CRACKING IN OUTSIDE	ı	I
EB OSS	3	12.0	4.0	FW LT	(8.5)	8.5				0.7' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, BLACK, FINE TO COARSE SANDY SILT	REF S-33	A-4	М	6	WHEEL PATH OF EB ISL	456,452	2,604,567
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	S-38	A-6	М				
LOCATION 26 EB OSL				5.0 FW RT	ASPHALT CONCRETE (24.0)	18.0	6.0			2.0' - 3.0' ROADWAY EMBANKMENT: WHITE, BLACK, FINE SANDY SILT	REF S-33	A-4	М	6		456,456	2,604,574
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-38	A-6	М				
LOCATION 26 EB ISS				2.0 FY LT	ASPHALT (8.0)	8.0				0.7' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, BLACK, FINE SANDY SILT	S-33	A-4	М	6		456,466	2,604,593
										3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK SILTY CLAY	REF S-29	A-7-6	М				
LOCATION 27 EB OES	FILL 4	EB OSL 12.0	EB OSS 4.0	4.0 S FW LT (RT)						1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, YELLOW, TAN, SILTY FINE TO COARSE SAND	REF B-4	A-2-4	М	6	LOW SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT OF EB OSL AND EB ISL	457,365	2,604,172
		EB ISL 12.0	EB ISS 4.0							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE TO COARSE SANDY SILT	REF S-32	A-4	М				
LOCATION 28 EB EM	FILL 3	EB OSL 12.5	EB OSS 4.5	6.0 S FY RT (RT)						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, FINE TO COARSE SILTY SAND	REF B-4	A-2-4	М	6	NO DISTRESS OBSERVED	457,846	2,604,073
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY CLAY	REF S-29	A-7-6	М				
LOCATION 29 EB OES	FILL 2	EB OSL 12.0	EB OSS 4.0	9.0 C FW LT						*UNABLE TO PREFORM DUE TO UTILITY CONFLICTS					MODERATE SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF EB ISL	458,483	2,603,864
		EB ISL 12.0	EB ISS 4.0														
LOCATION 30 EB EM	FILL 3.5	EB OSL 12.0	EB OSS 3.5	6.0 C FY RT						1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, TAN, SILTY FINE TO COARSE SAND	REF S-30	A-2-4	М	6	NO DISTRESS OBSERVED	458,967	2,603,773
		EB ISL 12.0	EB ISS 4.0							3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, TAN, SILTY FINE TO COARSE SAND	REF S-31	A-2-4	w				
LOCATION 31 EB OES	FILL 4	EB OSL 12.0	EB OSS 4.0	9.0 S FW LT (LT)						1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, GRAY, SILTY FINE TO COARSE SAND	REF B-4	A-2-4	М	6	LOW SEVERITY FATIGUE CRACKING IN INSIDE WHEEL PATH OF EB OSL AND EB ISL	459,457	2,603,590
		EB ISL 12.5	EB ISS 3.5							4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY CLAY	REF S-29	A-7-6	W				

Notes: NB = Northbound OSL = Outside Lane SB = Southbound CL = Center Lane

EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post

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Project:	44648.1.4		County:	CRAVEN
TIP:	R-5777C	Route:	US 70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS

 Date:
 7/22 - 7/30/2019

 Notes By:
 POWELL, S. H.

		Width			Pav	ement S	Structure,	Thickness	Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 32	FILL	EB RTL	EB OSS	6.0 C	T	T			I					MODERATE SEVERITY TRANSVERSE CRACKING IN		
EB EM	4	12.5	4.0	FY RT					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, TAN,	REF S-30	A-2-4	М	6	EB LTL	459,965	2,603,440
		EB OSL	EB ISS						GRAY, SILTY FINE TO COARSE SAND					LOW SEVERITY TRANSVERSE CRACKING IN OUTSIDE		
		12.5	4.0						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY CLAY	REF S-29	A-7-6	М		WHEEL PATH OF EB LTL		
		EB ISL 12.0														
		EB LTL														
		12.0														
LOCATION 33	FILL	EB OSL	EB OSS	2.5 C	ASPHALT	0.5			O THE OLD CARDWAY FMEANIGMENT VEH OW PROMIS	0.00				LOW SEVERITY TRANSVERSE CRACKING IN EB OSL	400.000	0.000.404
EB OSS	3	12.0	4.0	FW LT	(8.5)	8.5			0.7' - 3.0' ROADWAY EMBANKMENT: YELLOW, BROWN, GRAY, FINE TO COARSE SANDY SILT	S-32	A-4	М	6		460,388	2,603,194
		EB ISL 12.0	EB ISS 4.0						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-28	A-6	М				
LOCATION 33 EB ISL				3.0 FY LT	ASPHALT (18.0)	18.0			1.5' - 3.0' ROADWAY EMBANKMENT: GRAY, BLACK,	REF S-31	A-2-4	М	6		460,397	2,603,212
									SILTY FINE TO COARSE SAND							
									3.0 - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	W				
LOCATION 33 EB ISS				3.0 FY RT	ASPHALT (8.5)	8.5			0.7' - 3.0' ROADWAY EMBANKMENT: GRAY, BLACK,	S-31	A-2-4	М	6		460,400	2,603,219
EB 133				FIRI	(6.5)	0.5			FINE SANDY CLAY	3-31	A-2-4	IVI	0		460,400	2,003,219
									3.0 - 6.0 UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	W				
LOCATION 34 EB OES	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, SILTY	REF S-30	A-2-4	М	6	MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL	460,861	2,602,966
		EB ISL	EB ISS						FINE TO COARSE SAND							
		12.0	4.0						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-31	A-2-4	М				
LOCATION 35 EB EM	FILL 3	EB OSL 12.0	EB OSS 4.5	6.0 C FY RT					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY,	REF S-30	A-2-4	W	6	LOW SEVERITY LONGITUDINAL CRACKING EB ISL	461,320	2,602,789
EB EIVI	_								TAN, SILTY FINE TO COARSE SAND	IXL1 3-30	A-Z-4	V V			701,320	2,002,109
		EB ISL 12.0	EB ISS 4.0						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	W				
LOCATION 36 EB OES	GRADE	EB OSL 12.5	EB OSS 4.0	7.0 C FW LT					1.0' - 4.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, TAN, SILTY FINE TO COARSE SAND	REF B-1	A-2-4	М	6	LOW SEVERITY TRANSVERSE CRACKING IN EB OSL LOW SEVERITY FATIGUE CRACKING ALONG YELLOW	461,739	2,602,552
		EB ISL 12.0	EB ISS 3.5						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, BLACK, SILTY FINE TO COARSE SAND	REF S-31	A-2-4	М		LINE OF EB ISL AND EB ISS		

Notes:

NB = Northbound OSL = Outside Lane SB = Southbound CL = Center Lane

SB = Southbound CL = Center Lane EB = Eastbound ISL = Inside Lane WB = Westbound MP = Mile Post COL = Collector Lane ACCEL = Acceleration Lane DECEL = Deceleration Lane LTL = Left Turn Lane CTL = Center Turn Lane RTL = Right Turn Lane RT = Right LT = Left (I) = Inside

(O) = Outside

RT LN = Right Lane LT LN = Left Lane OSS = Outside Shoulder ISS = Inside Shoulder PS = Paved Shoulder OES = Outside Earth Shoulder EM = Earth Median



Project:	44648.1.4			County:	CRAVEN	
TIP:	R-5777C	Route:	US 7	70 - FROM THU	RMAN ROAD TO HAVELOCK BYPASS - E	ASTBOUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	ement Structure	, Thickne	SS	Subgrade				GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	nent ng / to ade in)	Asphalt (inches) Concrete (inches)	ABC (inches)		Description	Sample Number	AASHTO Classification Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
LOCATION 37 EB OES	GRADE	EB OSL 12.0 EB ISL 12.0 EB LTL 2.0	EB OSS 4.0 EB ISS 1.0	8.0 C FW LT					1.0' - 5.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, BLACK, SILTY FINE TO COARSE SAND 5.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY FINE SAND	REF B-4	A-2-4 M 6 A-2-4 M	MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL MODERATE SEVERITY LONGITUDINAL CRACKING IN RTL LT ALONG CONSTRUCTION JOINT OF EB OSL	462,279	2,602,290
LOCATION 38 EB EM	FILL 3	EB OSL 12.0 EB ISL 12.0	EB OSS 4 EB ISS 3.5	6 C FYRT					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, YELLOW, TAN, SILTY FINE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: YELLOW,	REF S-24	A-2-4 M 6	MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL, EB ISL, EB OSS, AND EB ISS MODERATE LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	462,718	2,602,128
LOCATION 39 EB OES	FILL 3	EB OSL 12.0 EB ISL 12.0	EB OSS 4 EB ISS 4.0	9 C FW LT					BROWN, GRAY, FINE SANDY CLAY 1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, SILTY FINE TO COARSE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: YELLOW, TAN, GRAY, SILTY FINE TO COARSE SAND	REF B-4	A-2-4 M 6 A-2-4 M	LOW TO MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL, EB ISL, AND EB ISS LOW SEVERITY EDGE CRACKING IN EB OSS LOW SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT BETWEEN EB ISL AND EB OSL	463,193	2,601,864
LOCATION 40 EB EM	FILL 3	EB OSL 12.5 EB ISL 12.0	EB OSS 4.0 EB ISS 3.5	6.0 C FYRT					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, CLAYEY FINE TO COARSE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: YELLOW, TAN, SILTY CLAY	REF S-25	A-2-6 M 6 A-7-6 M	LOW TO MODERATE SEVERITY TRANSVERSE CRACKING IN EB OSL, EB ISL, EB ISS, AND EB OSS TRANSVERSE CRACKING REFLECTS JOINTING LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	463,643	2,601,693
	-											-		

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Project:	44648.1.4		County:	CRAVEN	
TIP:	R-5777C	Route:	US 70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS - FAS	STROUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	vement S	tructure,	, Thickne	Subgrade					GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or	2 2 3 6 6	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth	Pavement Notes	Northing	Easting
LOCATION 41	FILL	EB OSL	EB OSS	2.0 C	ASPHALT	T	T				T	<u> </u>	LOW SEVERITY TRANSVERSE CRACKING THROUGH ALL	<u> </u>	l
EB OSS	3	12.0	4.0	FW LT	(8.0)	8.0			0.7' - 3.0' ROADWAY EMBANKMENT: GRAY, BLACK,	REF B-4	A-2-4	M 6	EB LANES AND SHOULDERS	463,955	2,601,509
		EB ISL 12.5	EB ISS 3.5						BROWN, SILTY FINE TO COARSE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, SILTY CLAY	REF S-29	A-7-6	M	LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
LOCATION 41 EB OSL				5.5 FW RT	ASPHALT CONCRETE (>19.0)	17.0	>2.0		BOTTOM OF CONCRETE CORE WAS NOT RECOVERED (CONCRETE GREATER THAN 2") DCP/AUGER NOT CONDUCTED					463,957	2,601,515
LOCATION 41 EB ISS				2.0 FY RT	ASPHALT (7.5)	7.5			0.6' - 3.0' ROADWAY EMBANKMENT: BROWN, YELLOW, SILTY FINE TO COARSE SAND	REF B-4	A-2-4	M 6		463,967	2,601,535
									3.0' - 6.0' UNDIVIDED COASTAL PLAIN: YELLOW, BLACK, GRAY, SILTY CLAY	REF S-29	A-7-6	М			
LOCATION 42 EB OES	GRADE	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT					1.0' - 4.0' UNDIVIDED COASTAL PLAIN: BROWN, TAN, SILTY FINE TO COARSE SAND	REF B-4	A-2-4	M 6	LOW SEVERITY TRANSVERSE CRACKING THROUGH ALL LANES AND SHOULDERS	464,635	2,601,183
		EB ISL 12.0	EB ISS 4.0						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN, BLACK, SILTY CLAY	REF S-29	A-7-6	М	LOW SEVERITY LONGITUDINAL CRACKING ALONG CONSTRUCTION JOINT BETWEEN EB ISL AND OSL		
LOCATION 43 EB EM	FILL 3	EB OSL 12.0	EB OSS 4.0	6.0 C FY RT					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, TAN, YELLOW, SILTY FINE SAND	REF S-24	A-2-4	M 6	LOW SEVERITY TRANSVERSE CRACKING IN EB OSL AND EB ISL	465,101	2,601,003
		EB ISL 12.5	EB ISS 3.5						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, TAN, BLACK, SILTY CLAY	REF S-29	A-7-6	w			
LOCATION 44 EB OES	FILL 4	EB OSL 12.0	EB OSS 4.0	6.0 C FW RT					1.0' - 4.0' ROADWAY EMBANKMENT: TAN, YELLOW, BROWN, GRAY, SILTY FINE SAND	REF S-30	A-2-4	M 6	LOW SEVERITY TRANSVERSE CRACKING IN EB ISL AND EB ISS	465,611	2,600,720
		EB ISL 12.5	EB ISS 3.5						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	М	LOW SEVERITY FATIGUE CRACKING IN BOTH WHEEL PATHS OF EB OSL		
													LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
LOCATION 45 EB OES	FILL 2	EB OSL 12.0	EB OSS 4.5	7.0 C FW LT					1.0' - 2.0' ROADWAY EMBANKMENT: TAN, YELLOW, GRAY, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	M 6	LOW SEVERITY LONGITUDINAL CRACKING IN THE	466,347	2,600,370
	_	EB ISL 12.5	EB ISS 4.0						2.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-22	A-6	М	CENTER OF EB ISL LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
													12.00		

Notes:

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OSS = Outside Shoulder ISS = Inside Shoulder

PS = Paved Shoulder

OES = Outside Earth Shoulder EM = Earth Median



			_			
Project:	44648.1.4			County:	CRAVEN	
TIP:	R-5777C	Route:	US	3 70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS - EA	STROUND

 Date:
 7/22 - 7/30/2019

 Notes By:
 POWELL, S. H.

		Width			Pav	ement S	tructure,	Thickness	Subgrade						GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 46 EB EM	FILL 2	EB OSL 12.0	EB OSL 4.0	6.0 C FY RT					1.0' - 2.0' ROADWAY EMBANKMENT: BROWN, TAN, GRAY, SILTY FINE TO COARSE SAND	REF S-30	A-2-4	М		LOW SEVERITY TRANSVERSE CRACKING IN OUTSIDE WHEEL PATH OF EB ISL	466,811	2,600,194
		EB ISL 12.5	EB ISS 3.5						2.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, TAN, BLACK, SILTY CLAY	REF S-29	A-7-6	М		LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
LOCATION 47 EB OES	FILL 2	EB OSL 12.5	EB OSS 4.0	6.0 C FW LT					1.0' - 2.0' ROADWAY EMBANKMENT: GRAY, TAN, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	М	6	LOW SEVERITY EDGE CRACKING IN EB ISS LOW SEVERITY TRANSVERSE CRACKING IN OUTSIDE	467,275	2,599,934
		EB ISL 12.0	EB ISS 4.0						2.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, FINE SANDY CLAY	REF S-22	A-6	М		WHEEL PATH OF EB ISL LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		
LOCATION 48 EB OSS	FILL 3	EB OSL 12.0	EB OSS 4.0	2.0 FW RT	ASPHALT (10.5)	10.5			0.9' - 3.0' ROADWAY EMBANKMENT: YELLOW, GRAY, BROWN, FINE SANDY CLAY	REF S-3	A-6	М	6	LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	467,582	2,599,791
		EB ISL 12.0	EB ISS 4.0						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-7	A-6	М				
LOCATION 48 EB ISL				3.0 FY LT	ASPHALT (10.25)	10.25			0.9' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, SILTY FINE TO COARSE SAND	S-30	A-2-4	М	6.0		467,591	2,599,811
									3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY CLAY	REF S-29	A-7-6	М				
LOCATION 48 EB ISS				2.0 FY RT	ASPHALT (6.25)	6.25			0.5' - 3.0' ROADWAY EMBANKMENT: GRAY, WHITE, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	М	6		467,595	2,599,818
									3.0' - 6.0' UNDIVIDED COASTAL PLAIN: BLACK, GRAY, SILTY CLAY	S-29	A-7-6	М				
LOCATION 49 EB OES	FILL 4	EB OSL 12.0	EB OSS 4.0	6.0 C FW LT					1.0' - 4.0' ROADWAY EMBANKMENT: YELLOW, TAN, FINE TO COARSE SILTY SAND	REF B-3	A-2-4	М	6	LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	468,017	2,599,583
		EB ISL 12.5	EB ISS 4.0						4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-27	A-6	М				
LOCATION 50 EB EM	FILL 3	EB OSL 12.5	EB OSS 4.0	6.0 C FY RT					1.0' - 3.0' ROADWAY EMBANKMENT: BROWN, GRAY, TAN, CLAYEY FINE SAND	REF S-25	A-2-6	М		LOW SEVERITY EDGE CRACKING ON EB ISS LOW SEVERITY LONGITUDINAL CRACKING IN	468,491	2,599,400
		EB ISL 12.0	EB ISS 4.0						3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-28	A-6	М		CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL		

Notes:

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Project:	44648.1.4		County:	CRAVEN
TIP:	R-5777C	Route:	US 70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	ement S	tructure,	Thickness	Subgrade						GPS Co	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 51 EB OES	FILL 3	EB OSL 12.0 EB ISL 12.0 EB LTL	EB OSS 4.0 EB ISS 3.5	6.0 C FW LT					1.0' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, SILTY FINE TO COARSE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, FINE SANDY CLAY	REF B-3	A-2-4 A-6	M	6	LOW SEVERITY EDGE CRACKING IN EB ISS LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	468,937	2,599,145
LOCATION 52 EB OES	FILL 3	3.5 EB OSL 12.0 EB ISL 12.0	EB OSS 4.0 EB ISS 4.0	6.0 C FW LT					1.0' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, CLAYEY FINE TO COARSE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BROWN,	REF S-25	A-2-6 A-7-6		6	LOW SEVERITY TRANSVERSE CRACKING EB ISL AND EB ISS LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	469,401	2,598,928
LOCATION 53 EB EM	FILL 4	EB OSL 12.5 EB ISL 12.5	EB OSS 4.5 EB ISS 3.5	6.5 C FYRT					BLACK, SILTY CLAY 1.0' - 4.0' ROADWAY EMBANKMENT: TAN, BROWN, GRAY, SILTY FINE SAND 4.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK,	REF S-24	A-2-4 A-6	M	6	SHUTTING IN EB ISL LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	469,859	2,598,752
LOCATION 54 EB OES	FILL 4	EB OSL 12.0 EB ISL 12.5	EB OSS 4.0 EB ISS 4.0	4.0 C FW LT					FINE SANDY CLAY 1.0' - 4.0' ROADWAY EMBANKMENT: GRAY, BROWN, TAN, FINE SANDY CLAY 4.0' - 6.0' UNDIVIDED COASTAL PLAIN: FINE SANDY	REF S-8	A-6	M	6.0	LOW SEVERITY TRANSVERSE CRACKING IN EB ISS LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	470,284	2,598,511
LOCATION 55 EB EM	FILL 3	EB OSL 12.0 EB ISL 12.0	EB OSS 4.0 EB ISS 4.0	7.0 C FY RT					CLAY 1.0' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, BROWN, CLAYEY FINE TO COARSE SAND 3.0' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-25	A-2-6 A-6	M		LOW SEVERITY LONGITUDINAL CRACKING IN CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	470,780	2,598,317

Notes:

(O) = Outside



			_			
Project:	44648.1.4			County:	CRAVEN	
TIP:	R-5777C	Route:	US	3 70 - FROM T	HURMAN ROAD TO HAVELOCK BYPASS - EA	STROUND

Date:	7/22 - 7/30/2019
Notes By:	POWELL, S. H.

		Width			Pav	ement Str	ucture,	Thickne	Subgrade					GPS Cod	ordinates
Test Location	Cut or Fill (Estimated Depth in feet)	Lane(s) (feet)	Shoulder(s) (feet)	Offset Distance (feet) Crown "C" or Super "S"	Pavement Layering / (Total to Subgrade in inches)	Asphalt (inches)	Concrete (inches)	ABC (inches)	Description	Sample Number	AASHTO Classification	Soil Moisture Probe Depth (feet)	Pavement Notes	Northing	Easting
LOCATION 56	FILL LT	EB OSL	EB OSS	2.0 C	ASPHALT	1				I	T		LOW SEVERITY LONGITUDINAL CRACKING IN		
EB OSS	2.5	12.0	4.0	FW LT	(8.75)	8.75			0.7' - 2.5' ROADWAY EMBANKMENT: GRAY, WHITE, BLACK, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	M 6	CONSTRUCTION JOINT BETWEEN EB OSL AND EB ISL	471,090	2,598,135
	FILL RT 3.5	EB ISL 12.0	EB ISS 4.0						2.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	М			
LOCATION 56 EB OSL				3.0 FW RT	ASPHALT (10.5)	10.5			0.9' - 2.5' ROADWAY EMBANKMENT: GRAY, WHITE, BLACK, SILTY FINE TO COARSE SAND	REF S-23	A-2-4	M 6		471,093	2,598,143
									2.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	М			
LOCATION 56 EB ISS				2.0 FW RT	ASPHALT (7.0)	7.0			0.6' - 3.5' ROADWAY EMBANKMENT: GRAY, BROWN, BLACK, CLAYEY FINE TO COARSE SAND	REF S-25	A-2-6	M 6		471,102	2,598,161
									3.5' - 6.0' UNDIVIDED COASTAL PLAIN: GRAY, BLACK, FINE SANDY CLAY	S-28	A-6	М			
LOCATION 57 EB OES	FILL 3	EB OSL 12.0	EB OSS 4.5	6.0 C FW LT					1.0' - 3.0' ROADWAY EMBANKMENT: TAN, YELLOW, GRAY, SILTY FINE TO COARSE SAND	REF B-3	A-2-4	M 6	LOW SEVERITY FATIGUE CRACKING IN OUTSIDE WHEEL PATH OF EB OSL	471,537	2,597,919
		EB ISL 11.5	EB ISS 4.0						3.0' - 4.0' UNDIVIDED COASTAL PLAIN: BROWN, GRAY, BLACK, FINE SANDY CLAY	REF S-26	A-6	М			
LOCATION 20 EB EM BULK				6.0 FY RT					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, TAN, SILTY FINE SAND	BULK-5	A-2-4	M 4		453,522	2,606,002
LOCATION 41 EB EM BULK				6.0 FY RT					1.0' - 4.0' ROADWAY EMBANKMENT: BROWN, SILTY FINE TO COARSE SAND	BULK-4	A-2-4	M 4		463,969	2,601,540
					ı										

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OES = Outside Earth Shoulder EM = Earth Median



Loca	ution	l a a	action	l 1.4	ation	1 100	otion	l las	ation	1 100	otion	l la	action	I la	aatian	l las	ation	1 100	otion
LOCATION			oation ON 2 EB EM		ation N 3 EB OES		ation N 4 EB EM		ation N 5 EB OSS	1	ation N 5 EB OSL		cation ON 5 EB ISS		oation N 6 EB OES		ation N 7 EB EM		ation N 8 EB OES
Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date
ESG	7/30/2019	ESG	7/30/2019	ESG	7/30/2019	ESG	7/30/2019	SG	7/30/2019	SG	7/30/2019	SG	7/30/2019	ESG	7/30/2019	ESG	7/30/2019	ESG	7/30/2019
Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Fill	Cut/Fill	Grade	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill
Subgrade	A-6	Subgrade	A-6	Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-2-6	Subgrade	A-2-6	Subgrade	A-2-6	Subgrade	A-2-6
Cumulative DC	P Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative DC	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative DO	CP Blows in CM	Cumulative I	OCP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative DC	CP Blows in CM
3.9		1.6		1.9		1.1		2.5		0.2 2.6		1.3 44.6		2.0		1.2		2.5	
9.5		3.4		4.3		2.4		4.3		0.6 3.0		2.1 45.5		3.9		2.6		4.8	
14.3 20.1		5.9 9.1		6.8 8.9		3.7 5.0		5.8 7.2		1.0 3.5 1.2 4.0		3.3 46.8 4.2 48.5		9.2		6.0	+ + -	7.7 10.8	
22.8		13.0		12.1		6.6		8.5		1.3 4.4		5.5 51.5		12.3		8.0		14.3	
25.8		15.8		15.6		8.3		10.2		1.6 4.7		6.3 53.8		17.0		10.7		18.5	
30.0		18.0		19.7		9.8		11.9		1.7 5.1		7.3 54.7		20.7		14.9		24.1	
34.5		19.7		24.7		11.4		14.3		2.0 5.8		8.1 57.5		25.4		18.7		28.3	
39.0		22.0		27.4		13.1		16.8		2.2 6.4		8.8 59.3	+ +	29.3		21.0	 	32.3	
42.9 46.0		24.7 27.8		28.0 29.5		14.8 16.6		18.6 20.8		2.4 6.9 2.7 7.4		9.5 61.1 10.4 62.8		32.3 35.0		23.1 27.1		37.1 42.6	
49.0		31.1	+ +	31.0	+ + +	17.9	 	23.0	+ +	2.8 7.6	 	11.1 64.4		38.0	+ + -	34.0	+ + +	47.6	
51.6		34.8		32.5	1	18.9		25.5		2.9 8.3		12.0 65.6		40.6	1	38.2	1 1	52.3	
54.2		38.8		34.0		20.1		27.5		3.1 9.0		12.7 67.0		43.2		40.2		56.6	
56.5		44.0		35.6		21.1		29.3		3.2 9.5		13.6 68.1		45.0		42.4		60.3	
58.6		47.4		37.4		22.3		32.1		3.3 10.3		14.4 69.1		46.9		45.7	1	63.5	
60.7 62.7		51.7 55.7	+ +	39.5 41.9	+ + + -	23.2 24.2	 	36.6 39.3	+ +	3.5 11.4 3.6 12.2	 	15.2 70.1 15.8 71.2		48.9 51.6	+ + -	49.3 52.6	+	66.5 69.4	
64.5		58.6		44.4	+ + -	25.5	 	41.5	+ +	3.6 12.2	 	16.5 72.5	+ +	52.2	+ + -	55.6	+ + -	71.7	
66.4		60.7		46.7		27.0		44.4		3.9 14.7		16.9 73.8		53.5		58.2	1	73.9	
68.2		63.0		49.2		28.9		47.7		4.1 16.5		17.5 75.3		55.3		60.8		76.0	
69.9		65.5		51.7		31.6		50.8		4.2 18.8		18.0 77.0		56.9		62.6		77.9	
71.8		67.9		53.9		34.1		52.9		4.4 20.5		18.6 78.7		58.5		65.0		79.9	
73.4 75.3		70.0 72.1		55.9 59.8		36.5 38.5		55.6 58.2		4.5 21.8 4.7 22.9		19.3 80.3 19.5 82.2		60.2 62.1		67.5 69.5		82.0 84.0	
77.2		73.9		61.6		40.6		59.7		4.8 24.1		19.9 84.1		64.9		71.4	+ +	85.8	
79.1		75.7		63.1		42.9		60.9		4.9 26.0		20.5 85.8		68.4		73.3		87.6	
81.0		77.8		64.6		45.2		62.1		5.0 29.0		21.0 87.2		71.6		75.1		89.4	
82.9		79.5		66.0		47.7		63.2		5.1 33.5		21.6 88.7		74.8		76.8		91.0	
84.8		81.1		67.4		50.1		64.3		5.2 37.1		22.3 90.5	+ +	77.6		78.6	+	92.8	
86.8 88.7		83.3 85.0		70.0 71.1		52.8 54.7		65.5 66.9		5.3 39.8 5.4 40.6		22.9 92.1 23.3 93.8		80.3 82.2		79.9 81.9	+ + -	94.3 95.9	
90.6		86.9		72.1		56.6		68.5		5.5 43.5		23.9 95.2		84.4		83.6		97.5	
92.4		88.6		73.1		59.0		70.6		5.6 45.0		24.5 96.6		86.5		85.0		99.2	
94.3		90.3		74.0		61.0		72.6		5.7 46.2		25.0 97.8		88.4		86.5			
96.3		91.9		75.0		63.1		74.5		5.8 47.2		25.4 98.8		90.3		88.1			
98.5		93.6		75.9		65.2		76.5		6.0 48.3		25.8 99.6		92.1		89.8	+ + +		
		95.3 97.0		77.0 77.9	+ +	67.3 69.5	 	78.1 79.4	+ +	6.1 49.4 6.3 50.7	 	26.2 100.7 26.6 101.7	1	93.8 95.6	+ +	91.3 92.7	+ + -	1	
		98.8	† †	78.7		71.6	† †	81.2	1 1	6.4 52.1	† †	27.1 102.8	1 1	97.3	1 1	94.2	† †	1	
		100.5		79.6		73.5		82.9		6.6 53.8		27.5 104.1				95.4			
		102.1		80.5		75.5		84.5		6.7 55.6		28.2 105.6				96.8			
		103.6		81.5		77.3		85.9		6.8 56.9		28.8 107.4				98.1	1	1	
		 		82.3 83.3	+ + -	79.0 80.6	 	87.4 88.8	+ +	7.0 58.4 7.1 59.6	 	29.3 29.9	+ +	1	+ +	99.3 101.2	+ +	+ +	
				84.3	 	82.0		90.3		7.1 59.6		30.4			+ + -	103.0	+ + -		
				85.4		83.2		91.8		7.3 62.0		30.9				104.4			
				86.6		84.3		93.0		7.4 63.0		31.4							
				87.6	 	85.7		94.3		7.6 64.3		32.0							
		 		90.0	+ + -	87.1 88.5	 	95.6 96.9	+ + + -	7.7 65.4 7.8 66.6	 	32.5 33.3	+ +	+	+ + -	 	+	+ + -	
				91.1	+ +	88.5 89.9	 	98.3	+ +	8.0 68.0	 	33.8	1	1	+ +	1	+ + -	1	
				92.1		91.6	1 1	99.5		8.1 68.9	1 1	34.5			1 1		1 1	1	
				93.0		93.1		100.8		8.3 70.4		35.2							
				94.1		94.4		102.1		8.4 71.5		35.9							
			+ +	95.2		95.8		103.5		8.6 73.0		36.8	1		+ +	1	 	1	
				96.3 97.3	+ + + -	97.0		104.8 106.1		Auger 74.0 75.4		37.5 38.5			+ + -		+	+ +	
				98.6	+ + +	 	 	100.1	+ +	24.6 cm 76.7	 	39.6			+ + -	 	+ + -	1	
				99.5	1					0.7 78.2		40.8		1 1	1		1 1	1	
				100.4						1.6 79.3		42.1							
NOTES:										2.1 80.4		43.4							



NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



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LOCATION			ocation ON 10 EB OES		ation N 11 EB OSS		ocation ON 11 EB ISL		ocation ION 11 EB ISS		cation N 12 EB OES		ation N 13 EB EM		cation N 14 EB OES		cation N 15 EB OES	LOCATION	ation 116 FR FM
Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date
ESG	7/30/19	ESG	7/30/19	SG	7/30/19	SG	7/30/19		7/30/19	ESG	7/30/19	ESG	7/30/19	ESG	7/30/19	ESG	7/30/19	ESG	7/30/19
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill
Subgrade	A-2-6	Subgrade	A-6	Subgrade	A-2-6	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-6	Subgrade	A-4	Subgrade	A-6	Subgrade	A-2-6	Subgrade	A-4
Cumulative DC	P Blows in CM	Cumulative	DCP Blows in CM	Cumulative D	CP Blows in CM	Cumulative	DCP Blows in	CM Cumulative	DCP Blows in CM	Cumulative D	OCP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative DC	P Blows in CM
2.9		1.7		0.7 93.5		1.2 22.9	97.3	2.1 59.6		1.4		2.0		1.3 92.6		2.7		1.3	
5.0		3.0		1.3 94.6		1.8 23.2	99.1	3.3 61.0		2.9		3.7	+ +	1.9 95.8		5.3		2.9	
6.9 8.8		4.5 5.9		2.0 95.4 2.6 96.3	+	2.3 23.7 3.0 24.1	100.9 102.5	4.2 62.3 5.3 63.8		4.7 7.1		5.9 8.7	+ +	2.9 99.2 3.7 102.4		8.2 11.9		7.4	
11.0		9.0		3.2 97.2		3.3 24.6	104.0	6.4 65.5		9.8		11.8		4.5 105.7		15.9		10.2	
13.9		12.6		3.8 98.2		3.7 25.0	105.7	8.1 67.5		11.9		15.0		5.5 107.4		18.8		15.5	
16.2		17.4		4.3 99.0		4.0 25.4	107.4	10.9 69.5		13.9		19.1		6.6		22.0		20.4	
18.5		23.2		4.7 99.8		4.2 26.0	109.0	14.1 71.3		16.2		22.7		7.0		25.1		25.5	
21.0 23.6		27.8 36.8		5.4 100.5 6.1 101.3	+ +	4.4 26.2 4.5 26.6	110.4	16.7 73.1 18.8 75.0		19.8 21.3		25.8 28.2	+ +	7.7 8.5		27.3 30.5	+ +	30.1	
25.8		48.2		6.6 102.2		4.7 27.3		20.6 77.1		22.7		30.6		9.2		33.2		38.1	
28.1		56.3		7.1 102.9		4.8 27.5		22.6 79.5		24.2		32.8		9.9		36.7		42.2	
30.4		62.4		7.8 103.8		5.0 28.0		25.1 81.8		25.8		34.9		10.8		40.4		46.4	
32.4		69.0		8.6 104.7		5.3 28.5		26.5 84.3		27.4		37.0		11.6		43.4		50.8	
35.5		75.2		9.1 105.5	1	5.5 29.1		27.3 86.9		29.3		39.2		12.3	1	46.0		56.3	
41.4 44.5		80.1 84.4	+ +	9.7 106.5 10.4 107.6	+ +	5.8 29.7 6.0 30.3		27.9 89.2 28.5 91.5		30.9 32.7	+ + -	41.5 43.5	+ +	13.0 13.8	+ +	48.7 51.2	+ +	61.2 67.2	
47.9		88.0		11.0 108.8		6.3 30.9		29.0 93.7		34.6	+ + -	45.7		14.5	+ +	53.7		71.7	
54.4		91.3		11.6		6.7 31.5		29.5 94.9		37.2		48.2		15.4	<u> </u>	56.6		75.4	
61.0		94.4		11.9		7.2 32.5		30.0 96.9		40.3		51.5		16.1		59.2		79.1	
65.5		97.0		12.6		7.5 32.9		30.6 99.9		45.3		53.4		16.9		61.6		82.2	
69.2 72.8		99.2		13.4 14.0	+ +	7.8 34.3 8.0 35.8		31.0 101. 31.6 104.		51.2 57.9		55.3 58.4	+ +	17.8 18.5		63.9 66.2	+ +	85.2 88.0	
75.7				14.8	+ +	8.7 37.6		32.0 105.		65.2		62.2		19.4		68.4	+ +	90.5	
78.7				15.8		9.2 38.9		32.5		71.6		65.9		20.7		70.5		93.1	
81.5				16.8		9.4 40.4		33.1		76.5		69.0		21.9		72.3		95.4	
84.0				17.7		9.8 42.0		33.5		80.6		71.8		23.0		74.2		97.7	
86.6 89.0				18.7 20.0		10.1 44.0 10.6 47.0		34.0 34.5		84.3 88.3		74.3 76.7		24.3 25.5		76.0 77.7		100.0 102.1	
91.4				21.3	+ +	10.0 47.0		35.1		92.9		79.1		26.9		79.2	+ +	104.2	
93.6				23.8		11.2 52.2		35.4		98.8		81.2		28.5		80.7		106.6	
95.8				29.9		11.6 54.6		36.0				83.1		30.6		82.1			
97.9				35.6		11.8 56.3		36.4				84.6		32.8		83.8			
100.0 102.0				39.5 42.7		12.3 58.1 12.6 59.7		36.8 37.5				86.1 88.2		35.0 36.4		85.2 86.7			
103.8				45.3		12.9 60.7		38.0				90.0		37.8		88.1			
				47.3		13.4 61.6		38.5				91.7		39.1		89.4			
				50.0		13.6 62.4		39.1				93.6		40.6		91.2			
				53.4	+ +	14.0 63.0		39.6		 	1	95.4	1	42.2	+ +	92.7			
				56.5 59.3	+	14.6 63.9 14.9 65.0	+	40.2 40.8	+ +		+	97.3 99.7		43.5 45.0	+ + -	94.2 95.6			
				61.8		15.4 65.8		41.3	+ +		+ + -	102.1		46.4	+ +	97.0			
				64.0		15.8 67.0		42.0				104.5		47.8		98.4			
				66.1		16.0 68.1		42.5				106.1		49.3		99.7			
				68.0	1	16.5 69.1		43.2						50.8	1	101.3			
				69.8 71.4	+ +	16.8 70.1 17.0 71.1		44.0 44.9	+ +	 	+ +		+ +	52.7 54.9	+ +	+ +	+ +		
		1		73.2	1	17.4 72.2		45.5	+ +	1	1 1			57.1	† †	† †	† †		
				74.8		17.7 73.4		46.4						59.4					
				76.2		18.1 74.7		47.1						61.3					
				77.5 78.9	1	18.5 76.0	+ +	48.1		 	1		1	63.7 65.9	+ + +	1	1		
				78.9 80.2	+ +	18.8 77.5 19.1 79.1		49.2 50.1	+ +	1	+ +	1	+ +	65.9 67.8	+ +	1	+ +		
		+ +		81.6	1	19.6 80.8		51.0		1 1	1 1		1	70.0	† †	1	† †		
				82.9		20.0 82.2		52.0						72.3					
				84.3	 	20.4 83.8		53.0						74.6	 	 			
				85.6 87.0		20.7 85.5 21.1 87.3		54.1 55.0						76.6 78.8	1	1			
		+ +		88.4	+ +	21.1 87.3 21.5 89.2		55.8		1	+ + + -			78.8 81.1	+ +	1			
				89.7		21.8 91.2		56.7						83.8		1			
				91.0		22.2 93.3		57.6						86.7					
NOTES:				92.4		22.7 95.3		58.6						89.4					



NOTES:
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1	41	1		1.0	ti	1 1		1 10		1 1		Ī		T 1.		1		1 100	-41
Loca LOCATION			N 18 EB EM		cation N 19 EB OSS	_	ation N 19 EB OSL		N 19 EB ISS		ation N 20 EB OES		Location FION 21 EB EM		cation N 22 EB OES		n 23 EB OES	LOCATION	ation
Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum		Datum	Date	Datum	Date	Datum	Date
ESG	7/30/19	ESG	7/30/19	SG	7/30/19	N/A	7/30/19	SG	7/30/19	ESG	7/30/19	ESG	7/27/19	ESG	7/27/19	ESG	7/27/19	ESG	7/27/19
Cut/Fill	Fill	Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Fill	Cut/Fil		Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill
Subgrade	A-6	Subgrade	A-2-4	Subgrade	A-6	Subgrade	Grade	Subgrade	A-6	Subgrade	A-6	Subgrac		Subgrade	A-6	Subgrade	A-6	Subgrade	A-2-4
Cumulative DC			CP Blows in CM		OCP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		e DCP Blows in CM		OCP Blows in CM		CP Blows in CM	Cumulative DC	
2.6	DIOWS III OM	2.6	l lows in our	2.8	JOI BIOWS III OIII	NOT PERFO		2.9		1.2	OI BIOWS III OIII	0.6 27.5		4.1	DIOWS III OIII	3.5	DIOWS III OIII	7.4	DIOWS III OM
12.1		4.4		4.8				4.9		1.9		1.0 30.0		10.1		8.8		19.1	
14.1		6.8		6.6				7.3		2.7		1.5 32.		14.1		19.9		29.4	
16.6		10.4		8.4				10.4		3.9		1.9 34.3		20.1		30.2		37.5	
21.3		14.7		10.3				15.7		5.2		2.6 36.4	1	24.9		40.9		47.6	
24.7		18.9		12.5				19.7		6.6		3.1 38.9)	33.3		43.5		56.2	
28.3		24.1		14.6				25.9		7.9		3.7 41.		39.4		44.8		63.8	
35.8		30.2		16.7				30.4		9.7		4.5 43.1		44.0		46.3		70.0	
43.4		36.2		18.8				36.5		11.7		4.9 45.0		47.4		52.7		75.2	
50.7		42.4		21.8		!		39.8		14.0		5.5 47.3		53.9		58.2		79.8	
55.7		47.4		24.1	+	1		44.3	1	16.3		5.8 49.2		61.7		62.8	+ +	84.3	
59.8		52.4	+ + +	26.1 28.1	+	1	+	53.9 61.9	+ + -	18.2 20.2	+ + +	6.2 50.8 6.7 52.3		67.2 71.7	+ +	67.2 71.8	+ + -	88.2 72.9	
63.6 67.0	-	57.0 61.0	+ +	30.2	+ +	1	+ +	61.9 67.6	+ +	20.2	+ +	6.7 52.3 7.1 53.8		71.7 75.7	+	71.8 75.7	+ +	72.9 76.6	
70.3		64.4	+ +	32.5	+ + + -	+ + -	+ + -	72.7	+ +	25.6	+ + + -	7.1 55.4		79.0	+ +	80.3	+ +	7 0.0	
73.5		68.0	+ +	35.0	+ +	1	+ + +	77.5	+ +	27.8	+ +	7.5 57.0		82.8	+ +	84.7	+ +	 	
76.6		71.0	1 1	37.1	1 1	1 1	† †	81.5	1	30.0	† †	8.1 58.		87.4	† †	88.8	† †	 	
79.5		74.2		39.6	1 1	 	1 1	84.8	1	32.4		8.4 60.		87.8		93.6	1 1	1	
82.4		77.0		42.2				88.1		34.9		8.9 62.8		91.3		97.8		i	
85.1		79.7		45.2				90.6		38.9		9.2 64.8	3	96.0					
87.6		82.1		49.5				93.0		43.7		9.7 66.	7	100.1					
90.2		84.5		55.8				95.5		46.2		9.9 68.							
92.5		86.8		60.3				98.0		49.2		10.4 70.0							
94.9		88.9		64.1				100.2		53.3		10.9 72.4							
97.3		90.7		67.4	+ +		 	102.7	1	57.1		11.4 74.		 			<u> </u>		
99.3		92.5 94.2		70.5 73.2		 		104.8 106.9		60.3 63.7		11.9 75.8 12.4 77.4							
101.4		96.1		75.7	+	+ + -	+ +	106.9	1	67.3		12.4 77.4		+ +			+ +		
		97.5		78.4		+ + -				70.6		13.2 81.0							
		99.1		81.1						73.6		13.6 83.0							
		100.5		83.6						76.3		14.2 84.8							
		101.7		85.8						79.2		14.6 86.5							
				89.7						81.8		15.0 88.							
				91.7						84.1		15.3 89.	7						
				93.8						86.5		15.8 91.5							
				96.2						88.8		16.3 93.0							
				98.3		!				90.8		16.6 94.4		<u> </u>					
				100.5	1 1	1	+ + +	 		93.0	 	17.0 96.0		1 1			+ +		
			+ +	102.7 105.2	+ +	+	+	 	+	95.2 97.3	+	17.5 97.0 17.9 99.0		+	+ +		+	 	
 		-	+ +	105.2	+ +	+ +	+ +	 	+ +	97.3	+ +	17.9 99.0 18.3 100		+ +	+ +	+ +	+ +	 	
			+ +	111.6	+ +	 	+ + +	 	+ +	101.2		18.8 102	.0		+ +		+ +	 	
		1	1 1		1 1	† †	† †	 	1	103.0		19.2 103		1 1		1	† †	1	
					1 1		1 1	 		104.7		19.7						†	
							<u> </u>			106.6		20.1					<u> </u>	<u> </u>	
										110.3		20.5							
												21.0							
												21.4							
			 		1	1	 		 		 	21.6		_			 	 	
					+ +	1	 	 	1 1	 		22.2		1			+ +	 	
			+ +		+	 	+	 	+ +	 	+ + +	22.7 22.9		+ + -		+	+ + -	1	
		-	+ +		+ +	1	+ +	 	+ +	 	+ +	23.2		1	+		+ +	 	
			+ +		+ +	+ + -	+ + +	 	+ +	 		23.5		+ +	+ +		+ +	 	
			+ +		+ +	1	+ + +	 	+ +	 		23.7		+ +	+ +		+ +	 	
			1 1		1 1	1	† †	 	1	 		23.9	1	1	+		† †	 	
					1 1		1 1	 		 		24.2						†	
			1 1									24.4						1	
												24.6							
												24.7							
												25.6		<u> </u>					
												26.2							



NOTES:
SG - Subgrade
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Cut/Fill Subgrade			cation N 26 EB OSS	LOCATIO	cation		ation		ation	LO	cation	LOC	ation	LO	cation	LUC	ation	Loca	
Datum ESG Cut/Fill Subgrade	Date		14 20 ED 000			I ((C:Δ11())	N 26 EB ISS		V 27 EB OES	LOCATIO	N 28 EB EM	LOCATION	N 29 EB OES	LOCATIO	N 30 EB EM		31 EB OES	LOCATION	N 32 EB EM
ESG Cut/Fill Subgrade			Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date								
Cut/Fill Subgrade		SG	7/27/2019	SG	7/27/2019	SG	7/27/2019	ESG	7/27/2019	ESG	7/27/2019	ESG	7/27/2019	ESG	7/27/2019	ESG	7/27/2019	ESG	7/27/2019
Subgrade	Grade	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill										
	A-6	Subgrade	A-4	Subgrade	A-4	Subgrade	A-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4
Sumulative DCP F	Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM		CP Blows in CM
1.4		7.4		4.4		2.6		3.9		2.3		3.2		3.1		1.8		3.5	
3.5		11.3		10.7		4.3		8.1		4.4		7.3		7.1		4.1		6.6	
5.6		15.6		25.3		6.5		12.7		7.0		10.3		10.7		6.2		10.2	
8.7		27.2		32.9		10.8		16.0		9.8		12.6		13.1		8.8		13.8	
12.8		56.1		37.9		17.9		17.6		12.6		15.1		15.4		11.5		18.2	
17.6		63.3		42.2		26.1		19.4		16.1		19.1		17.4		13.3		23.9	<u> </u>
24.7		68.3		45.8		41.7		21.8		18.6		23.7		19.6		15.1		33.4	<u> </u>
33.3		72.0	 	49.1		50.4		24.0		21.1		30.7		22.1		16.5		36.7	
42.3 49.7		75.3 78.2		52.1 55.1		56.2 61.4		25.9 28.2		23.9 26.2		37.9 43.1		24.0 26.1		17.9 20.1		38.7 40.7	
50.3		81.0		57.9		66.7		30.8	+ +	28.3		46.9		27.8		24.6		42.7	
50.8		83.4		60.4		74.7		32.5		30.9		47.9		29.9		31.9		44.8	
51.0		85.9	+ +	62.5	+ +	81.1	+ +	34.1	+ +	33.1	+ +	48.6	+ +	31.7	+ +	38.1	 	47.2	
51.2		88.3	1	64.5	1	85.4	† †	36.1		35.3	1	49.8	1	33.5		43.2		49.3	
51.6		90.8		66.7	1 1	89.2		38.2		38.2	 	53.8	 	35.2	1 1	47.7	 	52.1	
56.1		93.7		69.1		93.7		40.2		41.0		57.5		36.9		50.5		55.4	
59.9		96.4		71.1		96.7		41.8		43.7		60.7		38.4		53.4		62.4	
63.5		99.4		73.2		99.9		44.0		46.4		63.3		40.1		56.5		68.1	
66.9		102.3		75.3		102.7		45.6		49.0		65.8		41.5		59.5		72.1	
70.0		105.0	 	77.3	 	105.3	 	47.5	 	51.6	+	68.3	+	42.8	 	62.5	 	75.6	++-
72.7	-			 	+ +	107.7		48.8		53.9		70.4		44.0		65.1		78.7	
75.1 77.6						110.0		49.9 51.2		55.8 57.2		72.4 74.3		45.1 46.0		67.3 69.6		81.3 83.9	
79.9	-		+ +		+			52.2		58.8		76.2		47.3		71.6		86.2	
82.2	-		+					53.4		60.8		77.9		48.5		73.4		88.4	
84.4								54.3		62.9		79.7		49.6		75.4		90.5	
86.8								55.4		65.1		81.5		50.3		76.8		92.5	
88.9								56.6		67.0		83.0		51.8		78.4		94.5	
91.0								57.5		68.8		84.4		53.3		80.1		96.3	
93.4								58.3		70.6		86.0		55.1		81.7		98.1	
95.4								59.3		72.3		87.4		57.2		83.1		99.8	
97.3								60.2		74.0		89.0		59.7		84.6			<u> </u>
99.5	-			.	+ +			62.1		75.6		90.5		64.1		85.9			
101.7 106.7			 	-				63.5 65.6		77.1 78.6		92.1 93.5		66.8 68.9		87.3 88.5			
106.7	-		+ +		+			69.2		80.1		94.9		70.4		89.8			
	-		+					73.5		81.6		96.4		71.9		91.3			
			1 1	 	† †		† †	77.2	1	82.9	† †	97.8	† †	73.7	1 1	92.3	† †		
								80.4		84.3		99.3		74.8	1 1	93.7			
					1			83.2		85.5		100.9		76.3		94.9			
								85.8		86.8				78.0		96.3			
								88.3		88.0				79.9					
			 	 	 	 		90.4	 	89.1	+		+	82.2	 	 	 		++-
				 	+ +		+ +	92.6		90.4	+ +		+ +	84.7		 			+
			+ + -	 	+ + -	 		94.4 96.6	+	91.6 92.8	+ + -	 	+ + -	87.2 89.7	+	 	+	 	
		 	+ + -	 	+ +			98.6	+ + -	93.8	+ + -		+ + -	91.9	+ + -	 	 		
			+ +	 	+ +	 		100.3	+ +	94.9	+ +	 	+ +	94.2	+ +	 	 		
			1 1	 	 		 	1.00.0	1 1	96.0	+ + -		+ + -	96.9	+ + +	 			
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										98.4									
										99.7									
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			+ + + - +		1	1			1										+



NOTES:
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Loca LOCATION :			cation N 33 EB ISL		n 33 EB ISS		ation N 34 EB OES		N 35 EB EM		ocation ON 36 EB OES		cation ON 37 OES		ocation ON 38 EB EM		ation N 39 EB OES	Location	ation 40 FR FM
Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date
SG	7/27/19	SG	7/27/19	SG	7/27/19	ESG	7/27/19	ESG	7/27/19	ESG	7/26/19								
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Grade	Cut/Fill	Grade	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill
Subgrade	A-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-6
Cumulative DC	P Blows in CM	Cumulative D	OCP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative	DCP Blows in CM	Cumulative I	OCP Blows in CM	Cumulative	DCP Blows in CM	Cumulative D	CP Blows in CM	Cumulative DC	P Blows in CM
2.4		2.7		1.8 103.7		4.5		2.0		1.9		4.8		1.5		2.5		1.5	
4.6		3.7		3.5 104.8		10.5		4.0		3.6		9.7		3.5		6.0		2.8	
6.6		4.7		5.7 106.0		20.8		5.9		5.6		13.7		5.7		11.5		4.5	
9.4		5.7		7.9 107.3		35.0		8.1		7.3		22.0		8.2		17.6		7.1	
12.2		6.8 7.7	+	9.7 108.4 11.5 109.7	-	58.3 65.5		11.3 14.6		9.3 11.4		31.7 54.9		10.2 12.9		24.0 31.0		10.2 13.3	
14.9 17.8		8.6		13.2 110.7		69.3		17.2		13.8		71.2		15.8		36.0		20.9	
21.6		9.7		15.2		72.1		20.8		17.4		73.9		18.6		42.2		28.8	
27.1		10.8		17.0		78.2		23.5		22.5		77.6		21.2		45.6		35.4	
33.8		12.3		18.6		81.1		26.3		26.3		80.4		24.2		50.0		41.3	
40.4		13.9		20.2		83.5		29.9		29.4		82.4		27.3		54.4		46.2	
48.9		16.3		22.6	1	85.7		33.7	1 1	33.0		85.0		30.1		60.3		50.0	
54.8	-	18.3	1 1	25.4	+ +	88.1	1	36.5		36.3		86.9		33.4	1	66.2	1	53.8	
59.1 62.5	-	20.3 22.6	+ + -	27.3 29.0	+ +	90.0 91.8	+ + -	39.5 44.3	+ + -	39.5 45.6	+ + -	88.9 91.3	+ + -	36.6 42.3	+ + -	70.9 74.9	+ + -	56.7 59.3	
66.2		25.3	+ + -	30.3		93.8	+ +	50.3		50.8		93.8		46.7	+ +	74.9 78.4	+ +	61.8	
69.8	l	32.8	1 1	31.8	† †	95.6	† †	55.5	† †	56.5		97.4	† †	52.8	1 1	81.2	1	64.0	
72.8		39.9	1	33.1		97.3	 	60.1		61.9		100.3		58.3	 	83.6		66.1	
75.3		44.4		34.2		99.2		64.0		65.6				62.9		85.9		68.0	
77.7		47.6		35.2		101.0		67.2		68.3				66.6		88.0		69.6	
79.8		50.5		36.1		102.4		70.1		70.4				70.0		90.0		71.6	
82.3		53.3	1 1	37.2 38.1	1	104.2 106.0		73.0 75.2		72.4 74.1				73.0 75.7		92.0 93.9		73.1 74.2	
84.2 86.2		56.2 58.9		39.3		106.0		75.2		74.1				78.5		93.9 95.6		74.2 75.8	-
88.6		61.3		40.1		107.7		79.9		77.6				81.3		97.4		77.1	
90.6		63.3		41.1				82.0		79.3				83.3		99.0		78.4	
92.6		65.3		42.1				84.0		80.6				85.4				79.7	
94.7		67.9		42.9				85.9		81.8				88.7				81.2	
96.8		70.5		43.3				87.7		83.1				90.6				82.5	
98.8		73.3		44.4				89.5		84.8				92.5				83.9	
100.6 102.2		75.8 78.0		45.5 46.6				90.1 92.6		86.9 89.1				94.4 96.2				85.2 86.5	
104.0		80.1		47.3				94.3		90.5				97.8				87.5	
105.6		81.8		49.1				95.8		93.7				99.4				88.8	
106.9		83.4		51.2				97.2		96.0								90.1	
108.0		84.9		54.1				98.9		98.1								91.3	
109.4		86.3		57.4				100.6		99.9								93.2	
110.8		87.7	1 1	60.5	+ +	1		 	+ +	 	 	1	 	1 1	+ + -		+ +	94.1	
 	-	89.2 90.4	+ +	63.2 65.8	+ +	+ +	+ + + -	 	+ +	 	+ +	1	+ +	+ +	+ +		+ +	95.3 96.5	-
		50.4	+ + + -	68.3	+ +	+ + -	+ + -	 	+ +	 	+ + -	1 1	+ + + -	+ +	+ +	1	+ +	97.5	
			1	70.6			1 1			 					1			98.5	
				72.9														99.8	
				74.8														101.0	
			1 1	76.9		 	 			 				_				102.3	
			1 1	78.5 80.4	+ +	1					 							103.5	
 	-	1	+ + -	80.4 82.1	+ +	1	+ +	 	+ +	 	+ +	1	+ + -	 	+ +	1	+ +	1	
				83.8			 								+ + +				
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				98.3			<u> </u>												
				99.7															
	_			101.1															
NOTES:				102.4															



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Loca	tion		Locati	ion		Loca	ition		Loca	ation		Loc	cation		Locati	on		Loca	ation		Locat	tion	Lo	cation		Loca	ation
LOCATION 4		LOC		11 EB ISS	LOC		42 EB OES	LOC		43 EB EM			N 44 EB OES	LO	CAITON 4		LOC		I 46 EB EM	LOC		47 EB OES	LOCATIO		ISL	LOCATION	
Datum	Date	Datu		Date	Dati		Date	Datu		Date		Datum	Date		tum	Date	Datu		Date	Datu		Date	Datum		ate	Datum	Date
SG	7/26/19	SC		7/26/19	ES		7/26/19	ES		7/26/19		ESG	7/26/19		SG	7/26/19	ESC		7/26/19	ESC		7/26/19	SG	_	6/19	SG	7/26/19
Cut/Fill	Fill	Cut/		Fill	Cut/		Grade	Cut/		Fill		Cut/Fill	Fill	_	t/Fill	Fill	Cut/F		Fill	Cut/l		Fill	Cut/Fill		Fill	Cut/Fill	Fill
Subgrade Cumulative DCI	A-2-4	Subg		A-2-4 Blows in CM	Subg		A-2-4 P Blows in CM	Subg		A-2-4 P Blows in	204	Subgrade	A-2-4 CP Blows in CM		grade	A-2-6 Blows in CN	Subgr		A-2-4 P Blows in CM	Subgr		A-2-4 P Blows in CM	Subgrade Cumulative I		2-4	Subgrade Cumulative DC	A-6
2.4	Blows in C	u Cumula	ative DCP	BIOWS IN CIVI	1.6	ative DC	P Blows in Civi	2.0	ative DC	P Blows in	JIVI 1	Cumulative D	CP Blows in CW	1.6	lative DCP	Blows in Civ	1.6	itive DC	P Blows in Civi	1 g	tive DCI	P Blows in Civi	0.6 19.3	67.9	s in Civi	0.9 70.5	P Blows in Civi
4.0		2.8			4.5			5.3			2	2.6		3.5			4.2			5.1			1.1 19.6	69.3		1.8 71.9	
5.6		4.0			7.0			9.8			4	1.7		5.8			6.6			9.0			1.4 19.7	70.5		2.6 73.3	
7.3		5.4			9.6			22.2			6	6.8		8.8			9.3			12.1			1.8 20.2	72.2		3.4 74.6	
8.9		6.5			12.9			38.2				9.3		11.8			12.1			15.7			2.1 20.7	73.7		4.7 75.8	
10.5		8.2			17.7			54.5				1.7	+ +	14.7			15.6			18.2			2.6 21.0	74.9		5.9 77.1	
12.2 13.7		9.5 11.2			21.8 29.7			65.6 74.6				4.0 7.3	+	16.1 17.2			17.4 18.7			20.2 22.1			2.9 21.4 3.1 21.7	76.4 78.2		7.5 78.2 8.6 79.1	
14.9		13.1			35.6			82.1			_	20.2		18.3			19.8			23.9			3.3 22.1	79.9		9.6 79.8	
16.0		15.9			41.7			86.9				23.5		19.2			20.9			25.4			3.6 22.3	81.7		10.9 80.6	
17.2		18.7			49.1			92.0			3	30.6		20.1			22.0			26.7			3.7 22.7	83.3		12.3 81.8	
18.7		20.9			59.2			96.2				38.2	<u> </u>	21.2	\Box		23.6			27.9			3.9 22.9	85.1		13.6 82.4	
20.5		23.1			66.8			100.1				15.0	+ +	22.3	+		25.8			29.2			4.1 23.4	86.9		14.8 83.5	
22.6 24.8		25.5 28.5			71.8 75.3							50.3 54.7	+ +	23.6 25.3	+ +		30.1 32.6			30.4 31.6			4.3 23.9 4.6 24.3	88.4 90.1		16.0 84.2 17.0 85.2	
29.6		34.0	-		75.3 78.4							58.1	+ +	27.4	+ +		34.7			33.3		+	4.6 24.3	91.7		18.3 86.3	
37.3		42.2			81.0							61.4	1	29.7			35.9			34.4			5.4 25.0	93.3		19.7 87.3	
45.0		48.9			83.5						6	64.3		33.2			37.0			36.0			5.6 25.5	94.8		21.1 88.3	
51.3		54.3			85.9							6.8		37.0			37.8			37.9			5.8 26.1	96.2		22.7 89.8	
56.2		58.7			0.88							9.3		40.5			39.7			40.1			6.0 26.6	97.7		23.8 90.7	
60.3 63.6		62.6 66.0			90.2 92.0			1				71.9 74.3	+ + -	43.7 46.7	+ +		39.7 41.0			44.1 48.9	+		6.2 27.0 6.4 27.5	99.0 100.1		25.0 92.0 26.4 93.1	
66.7		69.0			93.8							76.5	+	49.4			41.8			53.0			6.6 28.0	100.1		26.4 93.1 27.9 94.2	
69.8		72.2			95.7							78.8		51.8			42.9			57.0			7.4 28.5	102.2		29.7 95.5	
72.3		75.3			97.5						8	31.0		53.9			43.8			60.8			7.7 28.9	103.0		30.8 96.5	
75.1		78.3			99.1						8	33.3		56.0			44.9			64.3			7.8 29.4	104.1		32.0 97.7	
77.7		81.0			100.7							35.3		58.1			45.9			67.3			8.0 29.9	105.2		33.0 98.8	
80.1		83.6										37.2	+ +	60.3			47.2			70.3 73.2			8.3 30.4	106.3		34.2 100.3	
82.3 84.7		85.9 88.3									_	39.1 91.1	+	62.4 64.4			48.7 51.1			73.2 75.9			8.5 31.0 8.8 31.5	107.3 108.3		35.3 101.3 36.3 103.0	
86.9		90.4										93.0		66.5			54.1			78.5			9.0 32.0	100.5		37.8 103.9	
89.1		92.6										94.9		68.5			57.5			81.1			9.2 32.4			38.9 105.3	
91.2		94.3									9	96.9		70.4			60.8			83.9			9.7 33.1			39.9 106.2	
93.2		96.0									9	8.8		72.3			64.1			86.6			10.0 33.7			40.9	
95.1		97.8 99.7											+ +	74.2			67.0			89.0 91.4			10.3 34.2			41.8	
96.8 98.8		101.6											+	76.0 78.2			69.9 72.5			91.4			10.6 34.9 11.2 35.6			42.9 44.2	
100.6		103.3									-			80.4	+ +		75.0			95.7			11.5 36.0			45.3	
102.3		105.2												82.2			77.4			97.9			11.8 36.7			46.5	
104.1		107.0												83.8			79.4			100.2			11.9 37.5			46.9	
		108.9											 	85.5	1		81.5						12.3 38.5			48.0	
													+ +	87.1 88.8	+ +		83.5 85.2			 	-		12.5 39.3 13.0 40.4			48.8 49.3	
								+					+ +	90.3	+ +		85.2 87.0			+		-	13.0 40.4 13.2 41.8			49.3 50.9	
											-		† †	91.8	† †		88.9					<u> </u>	13.5 42.7			51.6	+
														93.2			90.6						13.9 43.6			52.3	
														94.5			92.3						14.1 44.7			53.1	
													 	96.2			94.0						14.3 45.8	-		54.1	
								 					+ +	97.7	+		95.7 97.4		 	-			14.8 46.9 15.2 48.4	-		56.4 57.9	
 		+	-					 			\dashv		+ +	1	+ +		98.9			+			15.2 48.4 15.4 49.4	-		58.9	
 											-		1	1			100.5						15.8 50.5			60.2	
																	101.8						16.3 51.8			61.2	
							_										103.2						16.5 53.3			62.3	
													+ +	1	-		+						17.0 54.5			63.3	
														1	\vdash		+				+		17.1 55.8 17.3 57.5			64.2 65.0	
											-+		+ +	1	+ +		+ +						17.3 57.5			65.8	
														1			1 1						18.0 61.6			66.6	
																							18.3 63.5			67.4	
											\Box		<u> </u>		\Box		\bot						18.7 65.2			68.4	
NOTES:														1									19.0 66.5			69.0	



NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



Loos	tion	Lac	aatian	1.0	aatian	1 100	ation	1 100	action	Lan	ation	La	action	Loo	ation	1 100	ation	1 100	ation
LOCATION			cation N 49 EB OES		cation N 50 EB EM		ation N 51 EB OES		ation N 52 EB OES		ation N 53 EB EM		ation N 54 EB OES		ation N 55 EB EM		ation I 56 EB OSS	LOCATION	ation 56 FR OSI
Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date	Datum	Date
SG	7/26/19	ESG	7/26/19	ESG	7/26/19	ESG	7/26/19	ESG	7/25/19	ESG	7/26/19	ESG	7/25/19	ESG	7/26/19	SG	7/25/19	SG	7/27/19
Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill	Cut/Fill	Fill
Subgrade	A-2-4	Subgrade	A-2-4	Subgrade	A-2-6	Subgrade	A-2-4	Subgrade	A-2-6	Subgrade	A-2-4	Subgrade	A-6	Subgrade	A-2-6	Subgrade	A-2-4	Subgrade	A-2-4
Cumulative DC	P Blows in CM	Cumulative D	CP Blows in CM	Cumulative [CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative D	CP Blows in CM	Cumulative DC	CP Blows in CM
3.0 77.9		1.5		3.8 93.4		3.5 97.8		1.2		2.0		2.1 79.9		2.2		0.9 103.8		0.8 0.4	43.4
4.5 80.0 5.8 81.8		2.7 4.2		7.5 94.4 10.3 95.7	+ +	5.2 99.1 7.0 100.3		2.8		4.0 5.8		2.9 80.6 4.3 81.3	+ +	5.1 8.3		2.2 105.8 3.2 107.2		1.2 0.8 1.7 1.2	43.7 44.4
5.8 81.8 6.6 83.6		5.6		12.3 96.8		8.8 101.4		5.3		7.5		5.8 82.0		12.5		4.2		1.7 1.2	45.1
7.6 85.5		7.0		14.3 98.8		10.2		6.6		9.1		7.7 82.7		17.4		5.3		2.3 2.0	45.9
8.7 87.4		8.4		16.5 100.9		11.8		8.1		10.8		9.3 83.5		22.7		6.5		2.7 2.5	47.0
9.4 89.2		10.1		19.1 103.5		13.7		9.8		12.4		10.6 84.4		24.9		8.0		2.9 3.0	48.3
10.6 90.9 11.4 93.0		11.8 13.7		21.6 26.0	+ +	15.8 17.7		12.0 14.4		14.2 15.9		11.9 85.2 12.9 86.1	+ +	26.8 28.8		10.2 11.8		3.2 3.4 3.3 4.1	49.8 51.3
12.3 94.9		16.0		32.8		19.7		16.8		17.5		14.1 87.0		30.6		13.0		3.6 4.6	52.9
13.2 96.6		18.1		35.4		21.5		18.7		19.4		15.4 88.0		32.9		14.3		3.8 5.1	54.6
14.0 98.2		20.1		36.9		22.8		19.9		21.2		16.9 89.0		36.5		15.5		4.1 5.8	56.5
14.9 100.1		22.0		38.4		24.5		21.2		22.9		18.2 89.8		39.1		16.8		4.3 6.6	58.5
15.7 102.1 16.6 103.9		24.1 26.3	+ + -	40.4 42.4	+ + + -	26.8 29.1	+ + -	23.0 25.6	+ + -	24.8 26.7	 	19.4 90.6 20.8 91.5	+ +	40.9 42.8	+ + -	18.1 19.6	+ + + -	4.6 7.2 4.8 8.0	60.6 62.5
16.6 103.9 17.5 105.8		28.6	+ +	43.6	+ + -	31.4	+ + + -	28.8	+ +	28.8	+ + + -	20.8 91.5 22.9 92.4	+ +	42.8 44.4	+ + +	21.1		4.8 8.0 5.0 8.8	64.6
18.3 107.6		30.7		45.0		33.9		33.0		32.8		24.1 93.2		46.0		22.6		5.3 9.8	66.5
19.3 109.5		32.9		46.5		37.0		38.5		36.3		25.8 94.0		47.5		23.9		5.5 11.3	68.4
20.3 110.2		34.9		48.0		40.5		44.9		38.1		27.5 94.8		48.9		24.9		5.6 12.5	70.3
21.4 112.9 22.7		36.7 38.7		50.2 51.9		44.5 47.7		51.1 56.5		40.0 41.4		29.1 95.5 30.8 96.2		50.0 51.1		26.1 27.1		5.9 13.6 6.0 14.5	72.0 74.0
24.2		40.7		53.2	+	50.2		60.4		42.7		32.6 96.8		52.2		28.0		6.1 15.4	76.0
25.7		42.7		54.6		52.7		64.0		44.3		34.5 97.5		53.2		29.0		6.3 16.2	78.1
26.7		45.7		56.2		54.2		67.4		46.0		36.4 98.3		54.3		30.0		6.4 17.0	80.3
27.7		48.9		57.7		56.0		70.1		48.4		38.3 98.8		55.3		31.1		6.5 17.6	82.7
28.7 29.5		51.7 54.4		59.0 60.4		57.5 58.3		73.0 75.0		52.7 56.4		39.9 99.6 41.3 100.4		56.1 56.9		32.5 34.2		6.6 18.3 6.7 19.1	
30.4		56.7		61.4	1	59.1		77.0		59.6	+ +	42.8 101.3	+ +	58.3		36.3		6.9 20.1	
31.0		58.4		62.3		60.0		79.6		61.4		44.4 102.0		60.0		39.4		7.0 21.0	
31.7		59.5		63.4		60.8		82.4		62.8		45.5 102.9		61.6		41.5		7.1 22.1	
32.3		60.7		64.3		61.7		84.9 86.8		64.3		46.9 103.8		63.4		43.2 45.2		7.2 23.4	
33.0 33.6		61.7 62.7		65.3 66.3		62.6 63.5		88.6		65.9 67.8		48.0 49.3		65.1 66.8		45.2 47.7		7.4 24.9 7.5 26.4	
34.3		63.8		67.0		64.5		90.9		69.5		50.2		68.6		50.8		7.7 28.1	
35.1		64.6		67.9		65.8		93.2		71.2		51.2		70.3		53.0		7.8 29.2	
35.8		65.5		68.7		67.0		95.8		72.8		52.4		71.9		54.6		7.9 30.1	
36.7 37.4		66.4 67.1		69.4 70.2		68.4 69.8		98.1		74.4 75.9		53.5 54.7		73.4 75.1		56.2 57.6		8.0 30.7 8.1 31.4	
38.5		68.2		71.0		70.7				77.6		55.9		77.0		59.4		8.2 31.9	
39.5		69.2		71.9		71.7				79.0		57.0		79.2		61.6		8.3 32.3	
40.7		70.3		73.0		72.8				80.3		58.0		81.5		63.4		8.4 32.7	
42.0		71.2		73.9	1	73.7		 	+	81.5		59.0		84.1		65.0		8.6 33.2	
43.1 44.3		72.3 73.5	+ +	74.9 76.0	+ +	74.7 75.6	+ +	 	+ +	82.5 83.6	+ +	59.9 61.0	+ +	86.7 89.2	+ +	66.5 67.8		8.7 33.7 8.9 34.1	
45.6		74.7	1	77.1	1	76.6	1 1	1	† †	84.5	† †	61.8		91.6		69.2		9.0 34.6	
46.9		76.7		78.2		77.5				85.6		63.2		93.8		70.8		9.1 35.3	
48.3		79.4		79.6		78.6				86.7		64.5		95.9		72.6		9.2 35.7	
49.6 51.4		81.9 84.2		81.0 82.4	+ + -	79.5 80.5	 	 		87.9 89.1	 	66.0 67.8		98.2 100.2		74.7 76.9		9.4 36.2 9.5 36.8	
53.2		86.6	+ + -	83.3	+ + -	81.8	+ + -	 	+ + +	90.2	+ +	69.2	+	100.2	+ + -	76.9 79.3	+ +	9.5 36.8 9.6 37.3	
55.4		88.9	1	84.0	1	83.2	1 1			90.9		70.4				81.8		9.7 37.7	
58.1		91.2		84.8		84.6				91.6		71.4				83.7		9.76 38.2	
60.6		93.6		85.4		85.7	 			92.3		72.3				85.7		9.8 38.6	
62.3 64.0		96.1	+ +	86.2 86.8	+ +	86.9 88.0	+ + + -		+ + -	93.2 93.9		73.2 74.0			 	87.4 89.3		9.9 38.9 10.0 39.4	
65.4			+ +	87.5		89.3	+ + + -			94.6		74.0				91.0		10.0 39.4	
66.7				88.2		90.8				95.4		75.5				92.8		10.2 39.8	
68.1				89.0		92.1				96.2		76.3				94.6		10.4 40.2	
70.0				89.9		93.1				96.9		77.0				96.3		10.5 40.6	
71.9 73.9			+ +	90.6 91.5	+ +	94.2 95.3	+ +	 	+ +	97.8 98.6	1	77.6 78.4			+ +	98.2 99.9		10.6 41.4 Auger 41.9	
76.0			1	92.4	1	96.7	† †	† †	† †	55.5	† †	79.2				101.8		18.1cm 42.4	
NOTES:			<u> </u>	V4. 1		55.1	1				I		<u> </u>	<u> </u>	11	. 5 1.0	1 1	7 72.7	

NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



Loca	ntion		Lo	cation		Loca	ation		Loca	ation			Loc	ation			Locatio	n	- 1		Loca	ation		Loca	ation		Loc	ation		Loca	ation
LOCATION		<u> </u>	LOCATIO	N 57 EB OES																										LOCATION	
Datum	Date		Datum	Date	Da	itum	Date	Dat	um	Da	ate	Da	tum	Da	ate	Dat	um	Date		Datu	um	Date	Dat	tum	Da	ate	Datum	Da	ate	Datum	Date
SG	7/26/19	9	ESG	7/27/19	<u> </u>	. /=-1/			/=···								/=···													0.45=	
Cut/Fill	Fill		Cut/Fill	Fill		t/Fill		Cut				Cut				Cut				Cut/			Cut				Cut/Fill			Cut/Fill	
Subgrade Cumulative DC	A-2-6		Subgrade	A-2-4 OCP Blows in CM		grade	P Blows in CM	Subg		P Blows	in CM		grade	CP Blows	in CM	Subg	grade lative DCP E	Player in (CM	Subgi		P Blows in CM	Subo		CP Blows	in CM	Subgrade Cumulative Do	CD Player	in CM	Subgrade Cumulative DC	D Plays in CM
2.2	P DIOWS III		.0	CP Blows III CW	Cumu	liative DC	P BIOWS III CIVI	Cumu	lative DC	P DIOWS	III CIVI	Cumu	lative Do	JF BIOWS	S III CIVI	Cumu	alive DCF E	SIOWS III	CIVI	Cumula	ative DC	P BIOWS III CIVI	Cumu	lative DC	JF BIOWS	III CIVI	Cumulative Di	JP DIOWS	III CIVI	Cumulative DC	P BIOWS III CIVI
4.3			.8																												i
5.9		5	.3																												
7.5			.3			1																									
9.3			0.1																												
10.9 12.3			3.9 7.0		1	1																									
14.2			0.1			†																									i
15.8		2	3.6																												
17.7			6.6																												
19.8			8.4 9.9																												
21.6 23.3			1.2																												
25.9			2.9	1	1	†		1																							,
29.2		3	4.6																		_										
31.0			6.6																												
32.8			9.0		1	1																									
35.4 37.5	-		2.2 5.2	+ + -		+		1									 		+												
39.7		4	7.9	1		1													-												
41.6			0.6																												
43.2			2.9																												
44.7			5.4		1	-																									
46.2 47.6			7.8																												
48.6			2.1		1	1																									i
49.6			4.2																												
50.4			6.2																												
51.1			8.0			<u> </u>																									
51.7 52.6			1.9																												
53.4			3.7			†																									-
54.6		7	5.6																												<u> </u>
56.0			7.9																												
58.0			9.8		1	-																									
60.7 63.0			1.8 3.5																												
65.1			5.2			†																									i
66.6			7.1																												
68.0			8.8																												
69.4		9	0.5 2.4	1	1	1		1							1														 		
70.9 72.5 74.4 76.2		9 a	4.2		1	+		1												+				<u> </u>							-
74.4		9	5.9			<u> </u>														+											,
76.2		9	7.9																												
78.0		9	9.7																												
79.7		1	01.6 03.5	1	1	1		1																	-				-		
81.4 83.0	-	1	U3.5	+ + -		+		1									 		-+												
84.5		-+		1		1													-												
86.1																															
87.4						1																									
88.8					1	1														-											
90.3 91.9		+		+ + -	1	+		1									-		-+												ı
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99.3 101.0				 	1	1		ļ																					ļ		
101.0 102.8				+ + -	1	1		1							1										1				 		
102.0				+ +	1	+		1																1							
NOTES:					1								L									I I									



NOTES:
SG - Subgrade
SS - Stabilized Subgrade
CTBC - Cement Treated Base Course



PAVEMENT CORE PHOTOGRAPHS

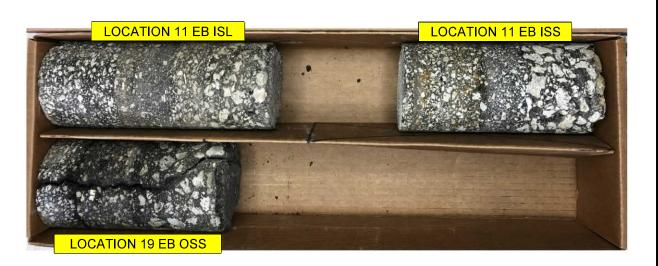
R-5777C

 C

71

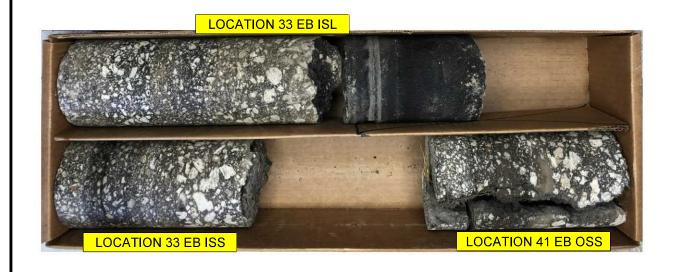
US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - EASTBOUND



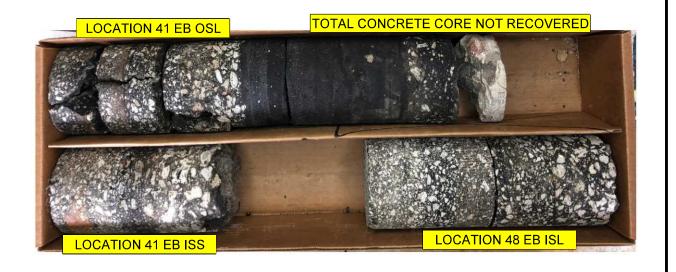








FEET

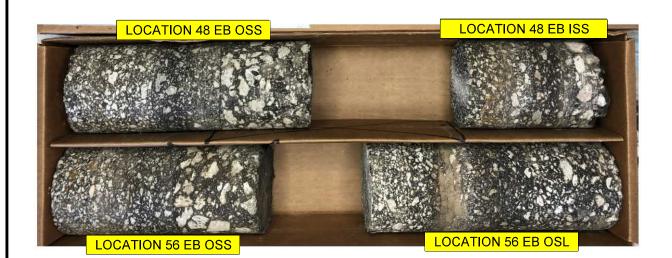


FEET

PAVEMENT CORE PHOTOGRAPHS US 70 - FROM THURMAN ROAD TO HAVELOCK BYPASS - EASTBOUND

R-5777C

72







LABORATORY TESTING SUMMARY

PROJECT NUMBER:	44648.1.4	TIP:	R-5777C	COUNTY:	CRAVEN
DESCRIPTION:			US 70 - FROM THURMAN ROAD TO HA	VELOCK BYPASS	

					Depth					% by W	eight		%	%	Passing (siev	es)		
Sample No.	Station	Alignment	Location	Offset (feet)	Interval (feet)	AASHTO Class.	L.L.	P.I.	Coarse Sand	Fine Sand	Silt	Clay	Retained #4 Sieve	#10	#40	#200	% Moisture	% Organic
B-1*	LOCATION 3	- L -	WB EM	5.0 FY LT	0.0 - 4.0	A-2-4 (0)	27	8	17.4	59.9	5.9	16.8	0	99	92	25		
B-2*	LOCATION 30	- L -	WB OES	6.0 FW RT	0.0 - 4.0	A-2-4 (0)	NP	NP	19.3	66.2	2.6	11.9	0	99	90	17		
B-3*	LOCATION 52	- L -	WB OES	6.0 FW RT	0.0 - 3.0	A-2-4 (0)	32	10	17.4	63.3	5.2	14.1	1	98	90	23		
B-4*	LOCATION 41	- L -	EB EM	6.0 FY RT	0.0 - 4.0	A-2-4 (0)	27	8	17.8	53.3	11.6	17.3	1	98	89	35		
B-5*	LOCATION 20	- L -	EB EM	6.0 FY RT	0.0 - 4.0	A-2-4 (0)	24	4	15.7	66.5	3.0	14.8	0	100	93	19		
S-1	LOCATION 2	- L -	WB OES	6.0 FW RT	3.5 - 6.0	A-6 (7)	35	23	0.0	49.8	11.2	39.0	0	96	96	50	28.3	
S-2	LOCATION 4	- L -	WB OES	6.0 FW RT	3.5 - 6.0	A-2-4 (0)	23	8	3.5	66.7	8.9	20.9	0	100	99	33		
S-3	LOCATION 7	- L -	WB OES	6.0 FW RT	1.0 - 3.5	A-6 (8)	35	23	3.7	46.9	12.7	36.7	1	99	97	52	24.4	
S-4	LOCATION 8	- L -	WB OSS	2.0 FW RT	2.5 - 6.0	A-6 (12)	40	26	0.9	42.8	16.4	39.9	0	100	100	60	21.7	
S-5	LOCATION 11	- L -	WB OES	4.0 FW RT	1.0 - 2.5	A-2-6 (0)	26	12	16.9	57.3	7.4	18.4	2	96	90	28		
S-6	LOCATION 15	- L -	WB OSL	3.0 FW LT	1.0 - 2.0	A-2-4 (0)	16	5	35.5	29.2	10.6	24.7	13	70	54	26		
S-7	LOCATION 19	- L -	WB OES	6.0 FW RT	2.0 - 6.0	A-6 (3)	26	12	0.0	54.8	17.5	27.7	0	100	100	53	16.2	
S-8	LOCATION 1	- L -	WB ISS	2.0 FW LT	0.8 - 3.0	A-6 (3)	30	16	1.4	55.8	10.9	31.9	0	100	100	45	19.8	
S-9	LOCATION 8	- L -	WB ISS	2.0 FY LT	3.0 - 6.0	A-7-6 (23)	51	35	0.0	33.6	15.4	51.0	0	100	100	70	28.7	
S-10	LOCATION 10	- L -	WB EM	7.0 FY LT	3.5 - 6.0	A-2-4 (0)	20	4	3.9	66.5	13.0	16.6	0	100	98	35		
S-11	LOCATION 21	- L -	WB OES	6.0 FW RT	4.0 - 6.0	A-6 (3)	28	14	1.9	57.0	14.5	26.6	0	100	99	49	13.2	
S-12	LOCATION 23	- L -	WB OSS	2.0 FW RT	1.0 - 2.5	A-2-4 (0)	16	3	22.5	49.5	8.6	19.4	9	83	73	25		
S-13	LOCATION 26	- L -	WB OES	6.0 FW RT	3.5 - 6.0	A-6 (14)	38	22	0.0	35.0	19.2	45.8	0	100	100	71	27.6	
S-14	LOCATION 29	- L -	WB OSS	2.0 FW RT	0.7 - 3.5	A-2-4 (0)	20	7	29.9	34.9	15.6	19.6	15	71	58	28		
S-15	LOCATION 29	- L -	WB OSL	1.5 FW LT	3.0 - 6.0	A-6 (15)	36	24	0.0	35.3	24.6	40.1	0	99	99	74	27.2	
S-16	LOCATION 30	- L -	WB OES	6.0 FW RT	1.0 - 3.5	A-2-4 (0)	21	5	15.0	64.3	4.9	15.8	0	99	94	23		
S-17	LOCATION 33	- L -	WB OES	6.0 FW RT	4.0 - 6.0	A-6 (7)	28	14	3.0	40.5	31.4	25.1	0	99	98	67	24.6	
S-18	LOCATION 20	- L -	WB EM	6.0 FY LT	1.0 - 3.0	A-2-4 (0)	22	7	11.3	62.6	7.7	18.4	0	100	96	29		
S-19	LOCATION 23	- L -	WB ISL(U)		1.0 - 4.0	A-4 (0)	20	8	23.3	36.3	13.0	27.4	3	90	77	39	14.7	
S-20	LOCATION 23	- L -	WB ISL(L)	2.0 FY RT	4.0 - 6.0	A-6 (7)	32	18	4.3	44.9	17.8	33.0	0	99	96	57	20.4	
S-21	LOCATION 25	- L -	WB EM	6.0 FY LT	1.0 - 4.0	A-2-4 (0)	20	4	14.4	63.7	6.7	15.2	2	97	92	23		
S-22	LOCATION 43	- L -	WB OES	6.0 FW RT	3.5 - 6.0	A-6 (5)	32	17	4.0	47.8	15.0	33.2	13	86	85	52	31.1	
S-23	LOCATION 44	- L -	WB OSS	2.0 FW RT	0.8 - 3.0	A-2-4 (0)	20	8	33.2	36.0	11.0	19.8	40	50	42	18		
S-24	LOCATION 50	- L -	WB OES	9.0 FW RT	3.0 - 6.0	A-2-4 (0)	NP	NP	14.1	67.8	5.4	12.7	1	97	93	20		
S-25	LOCATION 56	- L -	WB OES	8.0 FW RT	1.0 - 3.0	A-2-6 (0)	30	12	19.7	53.8	9.9	16.6	16	76	70	24		
S-26	LOCATION 44	- L -	WB ISS	2.0 FY LT	3.0 - 6.0	A-6 (12)	35	20	0.0	37.1	25.3	37.6	4	93	93	70	22.3	
S-27	LOCATION 45	- L -	WB EM	6.0 FY LT	3.5 - 6.0	A-6 (11)	34	20	0.0	30.7	39.8	29.5	19	81	81	70	15.6	
S-28	LOCATION 56	- L -	EB ISS	2.0 FW RT	0.6 - 3.5	A-6 (13)	38	24	0.0	45.8	21.7	32.5	0	100	100	66	23.3	
S-29	LOCATION 48	- L -	EB ISS	2.0 FY RT	3.0 - 6.0	A-7-6 (16)	41	27	0.9	35.7	19.3	44.1	2	98	98	68	24.7	
S-30	LOCATION 48	- L -	EB ISL	3.0 FY LT	0.9 - 3.0	A-2-4 (0)	18	6	20.4	50.5	8.5	20.6	3	89	82	28		
S-31	LOCATION 33	- L -	EB ISS	2. 0 FY RT	0.7 - 3.0	A-2-4 (0)	20	6	14.1	55.1	13.4	17.4	2	97	92	35		
S-32	LOCATION 33	- L -	EB OSS	2.0 FW LT	0.7 - 4.0	A-4 (0)	22	7	20.3	43.9	15.3	20.5	3	93	84	41	17.2	
S-33	LOCATION 26	- L -	EB ISS	2.0 FY LT	0.7 - 3.0	A-4 (0)	22	9	12.1	54.0	12.1	21.8	0	100	96	39	15.3	
S-34	LOCATION 24	- L -	EB EM	6.0 FY RT	3.0 - 6.0	A-6 (15)	38	24	1.4	34.1	22.3	42.2	0	100	100	71	26.7	
S-35	LOCATION 16	- L -	EB EM	6.0 FY RT	1.0 - 3.0	A-4 (1)	25	10	7.8	57.4	13.3	21.5	0	99	96	41	16.6	

*Denotes bulk sample collected for Standard Proctor, CBR, and chemical stabilization laboratory testing

FY - From Yellow

FW - From White

Certified Lab Technician Signature

114-01-1203 Certification Number

LABORATORY TESTING SUMMARY

PROJECT NUMBER: 44648.1.4	TIP:	R-5777C	COUNTY:	CRAVEN	
DESCRIPTION:		US 70 - FROM TH	URMAN ROAD TO HAVELOCK BYPASS		

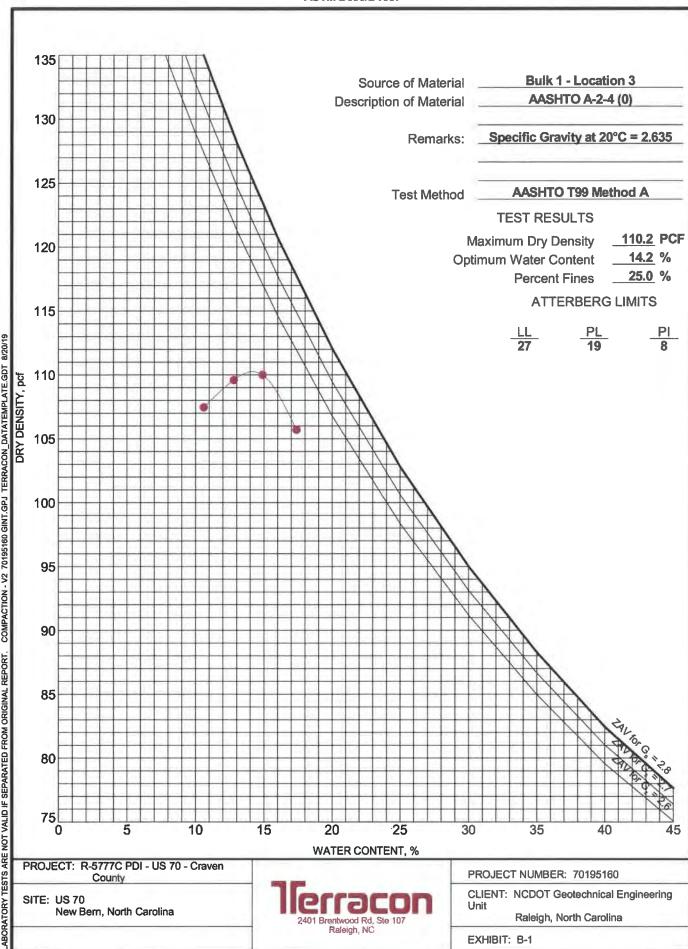
Camanla				Officer	Depth	AACUTO				% by W	/eight		%	%	Passing (siev	es)	0,	0/
Sample No.	Station	Alignment	Location	Offset (feet)	Interval (feet)	AASHTO Class.	L.L.	P.I.	Coarse Sand	Fine Sand	Silt	Clay	Retained #4 Sieve	#10	#40	#200	% Moisture	% Organic
S-36	LOCATION 11	- L -	EB ISS	2.0 FY RT	3.0 - 6.0	A-4 (0)	22	8	0.0	64.1	11.8	24.1	0	100	100	42	19.3	
S-37	LOCATION 11	- L -	EB ISL	2.0 FY LT	0.8 - 2.5	A-2-4 (0)	16	5	29.2	32.6	12.0	26.2	7	79	65	32		
S-38	LOCATION 26	- L -	EB OSS	2.0 FW LT	3.0 - 6.0	A-6 (15)	38	24	0.0	35.6	21.3	43.1	0	100	100	71	28.5	-
S-39	LOCATION 25	- L -	EB OES	8.0 FW LT	1.0 - 3.5	A-6 (2)	26	12	12.0	50.8	13.3	23.9	0	100	95	44	19.7	-
S-40	LOCATION 22	- L -	EB OES	6.0 FW LT	3.5 - 6.0	A-6 (6)	33	15	1.1	47.5	23.1	28.3	0	100	100	58	27.7	
S-41	LOCATION 20	- L -	EB OES	6.0 FW LT	3.0 - 6.0	A-6 (3)	26	13	0.0	59.5	16.3	24.2	0	100	100	49	15.9	
S-42	LOCATION 15	- L -	EB OES	6.0 FW LT	1.0 - 3.5	A-2-6 (0)	30	14	18.6	60.2	6.8	14.4	1	98	90	24		
S-43	LOCATION 10	- L -	EB OES	6.0 FW LT	3.5 - 6.0	A-6 (6)	31	20	1.9	53.3	15.1	29.7	0	100	99	49	21.3	
S-44	LOCATION 5	- L -	EB OSL	7.0 FW RT	1.0 - 3.0	A-2-4 (0)	16	6	30.3	31.5	12.8	25.4	5	83	69	33		
																		-

*Denotes bulk sample collected for Standard Proctor, CBR, and chemical stabilization laboratory testing FY - From Yellow FW - From White

Stephanie H. Huffman

Certified Lab Technician Signature

114-01-1203 Certification Number



REPORT FOR CALIFORNIA BEARING RATIO

08/14/19

08/20/19

2401 Brentwood Road, Suite 107 Raleigh, NC 27604 919-873-2211

NCDOT Geotechnical Engineering Unit Attn: Mike Whalen

1589 Mail Service Center

Service Date: Report Date:

Client

Raleigh, North Carolina 27699-1500

Project

R-5777C PDI - US 70 - Craven County

US 70

New Bern, North Carolina

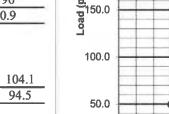
Project No. 70195160

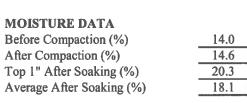
SAMPLE INFORMATION

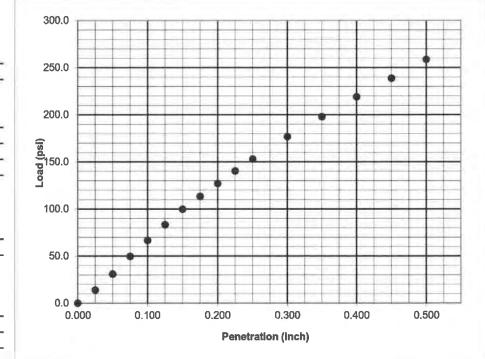
Sample Number:	Bulk 1	Proctor Method: AASHTO	T99 - Method A
Boring Number:	Location 3	Maximum Dry Density (pcf):	110.2
Sample Location:	WB EM -L-	Optimum Moisture:	14.2
Depth:	0-4'	Liquid Limit:	27
Material Description:	AASHTO A-2-4 (0)	Plasticity Index:	8

CBR TEST DATA

CBR Value at 0.100 inch	6.7
CBR Value at 0.200 inch	8.5
Surcharge Weight (lbs)	10
Soaking Condition	Soaked
Length of Soaking (hours)	96
Swell (%)	0.9







Comments: CBR performed at 95% compaction.

Obtain soil sample and test for California Bearing Ratio

Terracon Rep: Stephanie Huffman Reported To: Hugo Santana

Contractor:

Report Distribution

DENSITY DATA

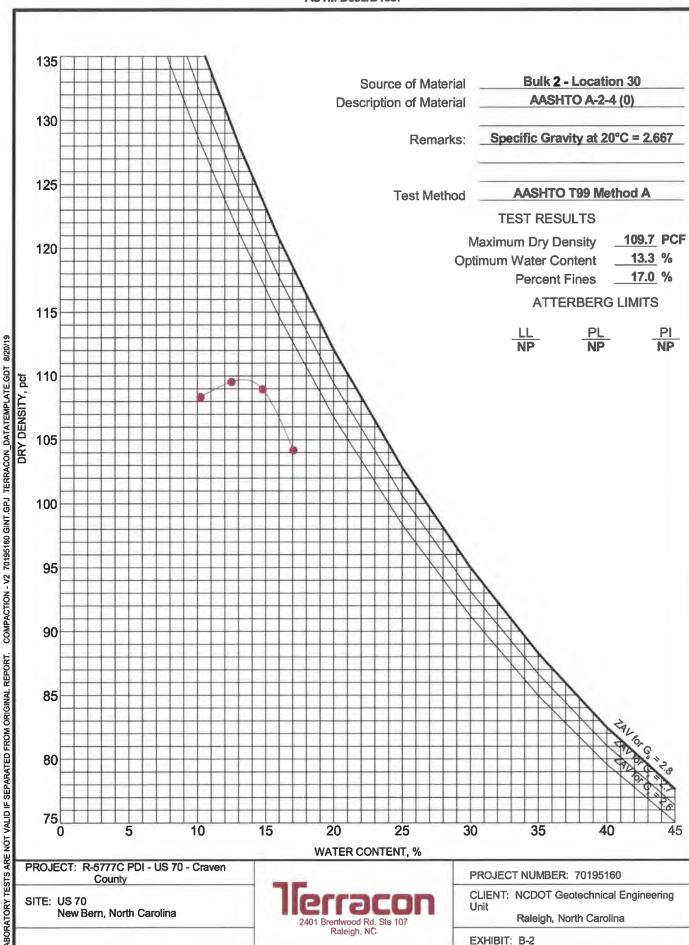
Dry Density Before Soaking (pcf)

Compaction of Proctor (%)

Geotechnical Project Manager

Test Methods: AASHTO T193

ASTM D698/D1557



REPORT FOR CALIFORNIA BEARING RATIO

08/14/19

08/20/19

Service Date:

Report Date:

1589 Mail Service Center

Client

2401 Brentwood Road, Suite 107 Raleigh, NC 27604 919-873-2211

Project

NCDOT Geotechnical Engineering Unit R-5777C PDI - US 70 - Craven County Attn: Mike Whalen

US 70

New Bern, North Carolina

Raleigh, North Carolina 27699-1500 Project No. 70195160

SAMPLE INFORMATION

Sample Number:	Bulk 2	Proctor Method: AASHTO	T99 - Method A
Boring Number:	Location 30	Maximum Dry Density (pcf):	109.7
Sample Location:	WB OES -L-	Optimum Moisture:	13.3
Depth:	0-4'	Liquid Limit:	NP
Material Description:	AASHTO A-2-4 (0)	Plasticity Index:	NP

CBR TEST DATA

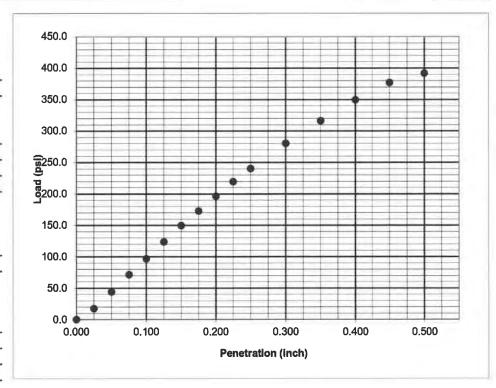
CBR Value at 0.100 inch	9.7
CBR Value at 0.200 inch	13.1
Surcharge Weight (lbs)	10
Soaking Condition	Soaked
Length of Soaking (hours)	96
Swell (%)	0.5



Dry Density Before Soaking (pcf)	105.2
Compaction of Proctor (%)	95.9

MOISTURE DATA

Before Compaction (%)	13.3
After Compaction (%)	13.5
Top 1" After Soaking (%)	18.2
Average After Soaking (%)	16.7



Comments: CBR performed at 95% compaction.

Obtain soil sample and test for California Bearing Ratio Services:

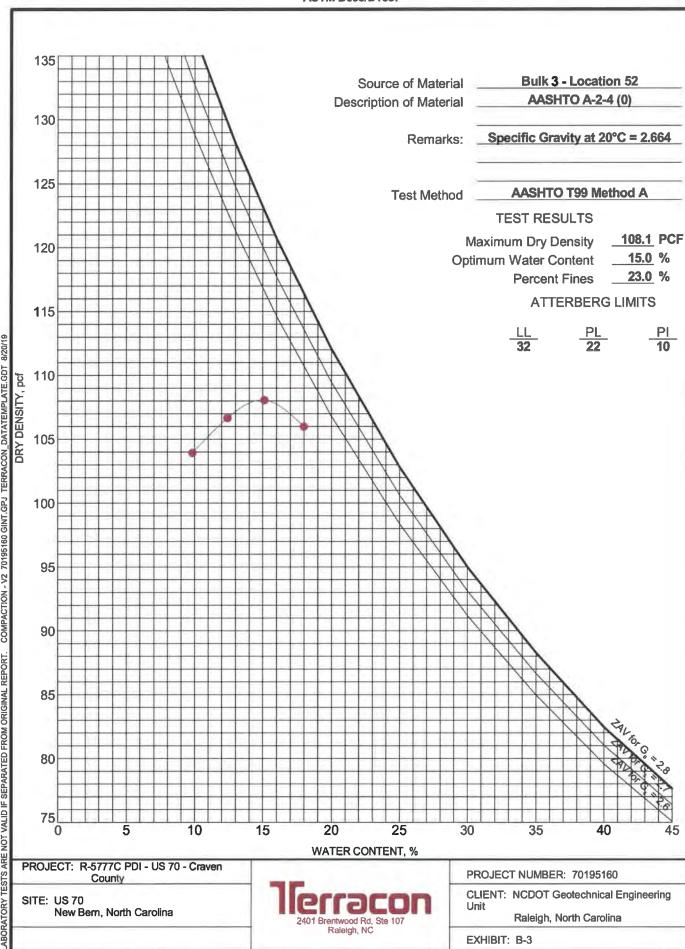
Terracon Rep: Stephanie Huffman Reported To: Hugo Santana

Contractor:

Report Distribution

Reviewed by: Geotechnical Project Manager

Test Methods: AASHTO T193



REPORT FOR CALIFORNIA BEARING RATIO

08/14/19

08/20/19

2401 Brentwood Road, Suite 107 Raleigh, NC 27604 919-873-2211

NCDOT Geotechnical Engineering Unit

Attn: Mike Whalen 1589 Mail Service Center

Service Date:

Report Date:

Client

Raleigh, North Carolina 27699-1500

Project

R-5777C PDI - US 70 - Craven County

US 70

New Bern, North Carolina

Project No. 70195160

SAMPLE INFORMATION

Sample Number:	Bulk 3	Proctor Method: AASHTO	Γ99 - Method A
Boring Number:	Location 52	Maximum Dry Density (pcf):	108.1
Sample Location:	WB OES -L-	Optimum Moisture:	15.0
Depth:	0-4'	Liquid Limit:	32
Material Description:	AASHTO A-2-4 (0)	Plasticity Index:	10

CBR TEST DATA

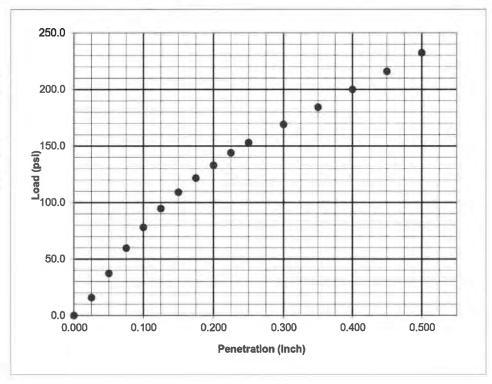
CBR Value at 0.100 inch	7.8
CBR Value at 0.200 inch	8.9
Surcharge Weight (lbs)	10
Soaking Condition	Soaked
Length of Soaking (hours)	96
Swell (%)	0.8

DENSITY DATA

Dry Density Before Soaking (pcf)	100.6
Compaction of Proctor (%)	93.1

MOISTURE DATA

Before Compaction (%)	15.0
After Compaction (%)	15.1
Γop 1" After Soaking (%)	21.5
Average After Soaking (%)	20.1



Comments: CBR performed at 95% compaction.

Obtain soil sample and test for California Bearing Ratio Services:

Terracon Rep: Stephanie Huffman Reported To: Hugo Santana

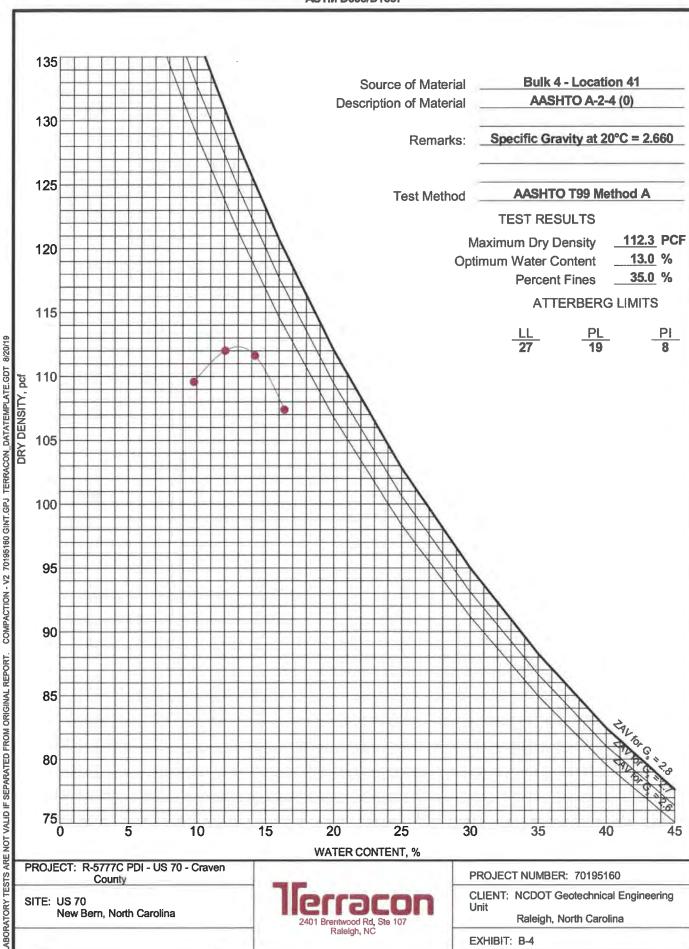
Contractor:

Report Distribution

Geotechnical Project Manager

Test Methods: AASHTO T193

ASTM D698/D1557



REPORT FOR CALIFORNIA BEARING RATIO

2401 Brentwood Road, Suite 107 Raleigh, NC 27604 919-873-2211

NCDOT Geotechnical Engineering Unit

08/14/19 08/20/19

Attn: Mike Whalen

Service Date:

Report Date:

Client

1589 Mail Service Center

Raleigh, North Carolina 27699-1500

Project

R-5777C PDI - US 70 - Craven County

US 70

New Bern, North Carolina

Project No. 70195160

SAMPLE INFORMATION

AASHTO T99 - Method A Sample Number: Bulk 4 Proctor Method: Maximum Dry Density (pcf): 112.3 Boring Number: Location 41 EB EM -L-**Optimum Moisture:** 13.0 Sample Location: Liquid Limit: Depth: 0-4 27 Material Description: AASHTO A-2-4 (0) Plasticity Index:

CBR TEST DATA

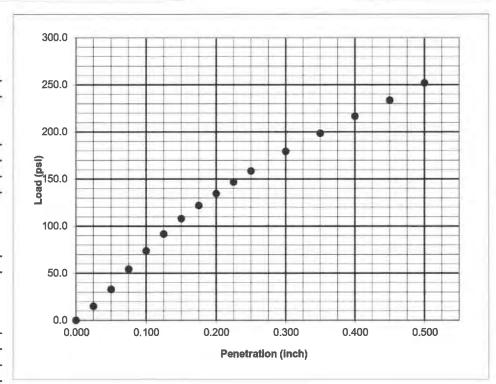
CBR Value at 0.100 inch 7.4 9.0 CBR Value at 0.200 inch Surcharge Weight (lbs) 10 Soaked **Soaking Condition** Length of Soaking (hours) 96 Swell (%) 1.0

DENSITY DATA

Dry Density Before Soaking (pcf) 106.2 Compaction of Proctor (%) 94.6

MOISTURE DATA

Before Compaction (%) 13.0 12.9 After Compaction (%) Top 1" After Soaking (%) 19.0 Average After Soaking (%) 17.4



Comments: CBR performed at 95% compaction.

Services: Obtain soil sample and test for California Bearing Ratio

Terracon Rep: Stephanie Huffman Reported To: Hugo Santana

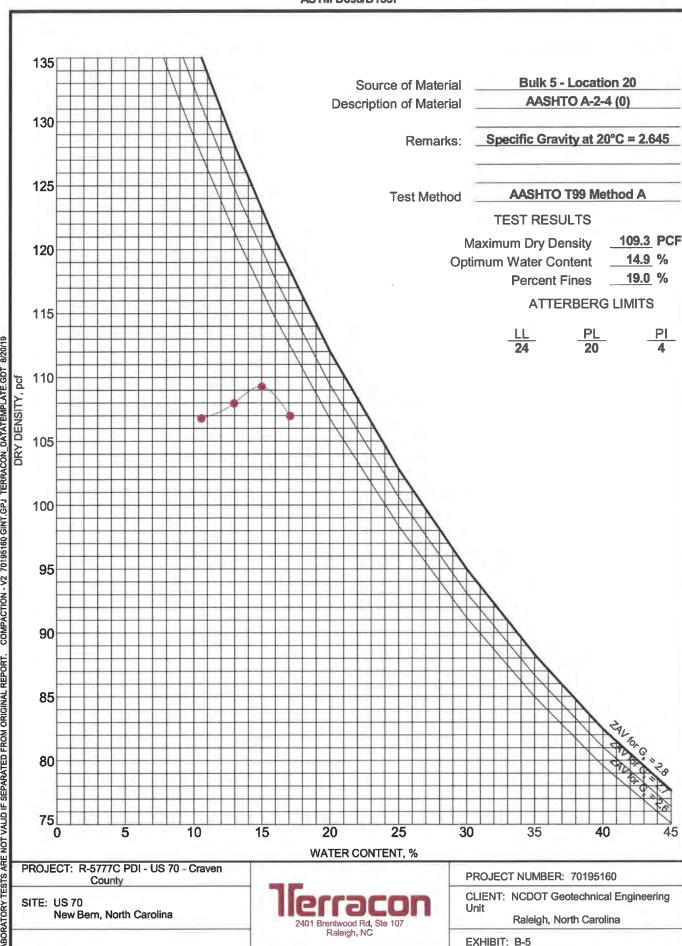
Contractor:

Report Distribution

Geotechnical Project Manager

Test Methods: AASHTO T193

ASTM D698/D1557



REPORT FOR CALIFORNIA BEARING RATIO

Terracor

08/14/19 08/20/19

2401 Brentwood Road, Suite 107 Raleigh, NC 27604 919-873-2211

NCDOT Geotechnical Engineering Unit

Attn: Mike Whalen 1589 Mail Service Center

Service Date: Report Date:

Client

Raleigh, North Carolina 27699-1500

Project

R-5777C PDI - US 70 - Craven County

US 70

New Bern, North Carolina

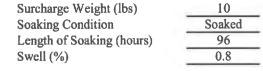
Project No. 70195160

SAMPLE INFORMATION

Sample Number:	Bulk 5	Proctor Method: AASHTO	T99 - Method A
Boring Number:	Location 20	Maximum Dry Density (pcf):	109.3
Sample Location:	EB EM -L-	Optimum Moisture:	14.9
Depth:	0-4'	Liquid Limit:	24
Material Description:	AASHTO A-2-4 (0)	Plasticity Index:	4

CBR TEST DATA

CBR Value at 0.100 inch	7.2
CBR Value at 0.200 inch	9.7

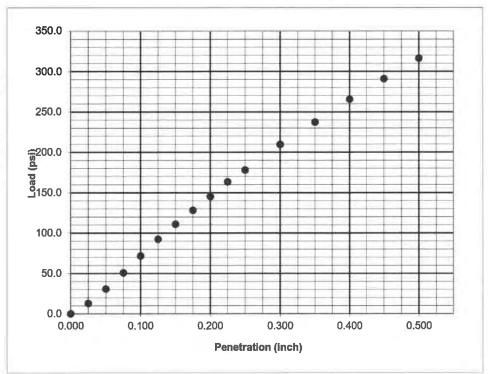


DENSITY DATA

Dry Density Before Soaking (pcf)	104.1
Compaction of Proctor (%)	95.2

MOISTURE DATA

Before Compaction (%)	14.7
After Compaction (%)	14.6
Top 1" After Soaking (%)	18.7
Average After Soaking (%)	17.7



Comments: CBR performed at 95% compaction.

Services: Obtain soil sample and test for California Bearing Ratio

Terracon Rep: Stephanie Huffman Reported To: Hugo Santana

Contractor:

Report Distribution

Reviewed by:

Hugo Santana

Geotechnical Project Manager

Test Methods: AASHTO T193